ATHLETIC JOURNAL

THE LIBRARY OF
APR 7, 19
UNIVERSITY OF ILL

VOL. XXXIV No. 8 April, 1954

PLANNING THE OFFENSE

A New High Standard For Inflated Rubber Balls

With more than half a century of know-how acquired in the design and production of the industry's finest inflated leather goods, Rawlings has now applied this unmatched reservoir of ability and experience to the development and manufacture of the HERCULITE super-quality line of rubber footballs, basketballs, volley balls and soccer balls—as always .....

Rawlings

"The Finest In The Field!"

Order From Your Rawlings Dealer

RAWLINGS SPORTING GOODS COMPANY • SAINT LOUIS & LOS ANGELES

in '52
in '53
again in '54

HILLYARD GYM FINISHES

The choice of MAJOR TOURNAMENT FLOORS ACROSS THE NATION

N.C.A.A. & N.A.I.A.
Kansas City Municipal Auditorium, Mo.

N.I.T. - Madison Square Garden, N. Y.

A.A.U. - St. Joseph Auditorium, Mo.

N.J.C.A.A.
Hutchinson Sports Arena, Kans.
—and 15,000 of the nation's finest gyms

- NON-SKID!
- NO-GLARE!
- LONG-WEAR!
- EASY-CARE!

And with Hillyard Gym Finishes you get the free advice and help of a trained floor expert (Hillyard Maintainer) to solve floor problems.

FIND OUT HOW TO GIVE YOUR GYM THE "FINISH FOR CHAMPIONS." SEND FOR FREE HILLYARD SPECIFICATIONS

Hillyard Chemical Co.
St. Joseph, Mo.

Please send me complete information on how to give my gym a championship Hillyard finish . . Save maintenance costs and frequent refinishings.

Name.....Position.....
School or Institution.....
Address.....
City.....State.....

Famous
HILLYARD PRODUCTS USED:
For Sealing
WOOD PRIMER
For Finishing
STAR GYM
For Maintaining
SUPER HIL-TONE

FLOOR HILLYARD TREATMENTS

ST. JOSEPH, MISSOURI
Passaic, N. J. San Jose, Calif.
Branches in Principal Cities

Published by
THE ATHLETIC JOURNAL PUBLISHING CO.
6858 Glenwood Avenue
Chicago 26, Illinois
MAJOR JOHN L. GRIFFITH
Founder
JOHN L. GRIFFITH
Publisher and Editor
M. M. ARNS
Associate Editor
Bevan Jones
Art Editor

INFORMATION EDITORS
1953 - 1954

FOOTBALL
Charles "Bud" Wilkinson, University of Oklahoma
Jeff West, Cairo, Georgia, High School

SIX-MAN FOOTBALL
M. L. Rafferty, Jr., Big Bear Lake, Cal. High School

BASKETBALL
Howard Hobson, Yale University
John A. Grayson, Springfield, Missouri High School

BASEBALL
Dan Jessee, Trinity College
James Smilgoff, Taft High School, Chicago

TRACK
Clyde Littlefield, University of Texas

SWIMMING
Richard O. Papenguth, Purdue University

WRESTLING
Art Griffith, Oklahoma A. & M. College

BOXING
John J. Walsh, University of Wisconsin

GOLF
Les Bolstad, University of Minnesota

HOCKEY
Westcott E. S. Moulton, Brown University

SOCCER
George D. Ritchie, Wethersfield, Connecticut High School

GYMNASTICS
Newton G. Loken, University of Michigan

PHYSICAL EDUCATION
William L. Hughes, Temple University

FENCING
Irving De Koff, Columbia University

TENNIS
William Murphy, University of Michigan

TRAINING
Fitz Lutz, University of North Carolina

Eastern Advertising Representative:
Charles Thorp, 370 Lexington Avenue, New York City

Published monthly except July and August by the Athletic Journal Publishing Company, 6858 Glenwood Avenue, Chicago, Illinois. Member Audit Bureau of Circulations. Request for change of address must reach us thirty days before the date of issue with which it is to take effect. Duplicate copies cannot be sent to replace those undelivered through failure to send advance notice.

Subscription Prices: $2.00 per year; $3.00 for two years; $3.75 for three years; $1.20 for six months; $1.00 for five months; Canada $2.50 per year; foreign $2.75 per year. Single copies 25 cents for current volumes; 35 cents per copy for back volumes. Copyright 1954. The Athletic Journal Publishing Company. Entered as second-class matter, August 14, 1925 at the post office at Chicago, Illinois under the Act of March 3, 1879; additional entry at Rochelle, Illinois.

The ATHLETIC JOURNAL

Nation-Wide Amateur Athletics

Volume XXXIV **Number 8**

April, 1954

4 FOOTBALL ARTICLES

PLANNING THE OFFENSE 6
Dennis Gildea

DEFENSE AGAINST SIX-MAN SPREADS 10
Andrew W. Grieve

A WORKABLE SPLIT T DEFENSE 12
Dr. Don Veller

HIGH SCHOOL FOOTBALL OFFENSE 18

4 ARTICLES ON FACILITIES

BATTING TEES 44
Louis Jorndt

LAMINATED BROAD JUMP BOARD 44
Lyle Bennett

SWIMMING RECORD BOARD 45
Charles Wild

BASKETBALL HOLDER 45
Warren L. Cartier

1 TRACK ARTICLE

RUNNING BROAD JUMP 8
Melvin Shimek

1 TENNIS ARTICLE

SUCCESSFUL PROMOTION OF TENNIS 14
T. H. Vaughan

1 TRAINING ARTICLE

THE ATHLETIC TRAINER IN SECONDARY SCHOOLS 15
Richard K. Cole

1 BASEBALL ARTICLE

MAKE THE MOST OF THE GAMES 26
Charles R. Stubblefield

1 ARTICLE ON TURF

REDUCE INJURIES WITH GOOD TURF 28
Fred V. Grau

1 ARTICLE ON ADMINISTRATION

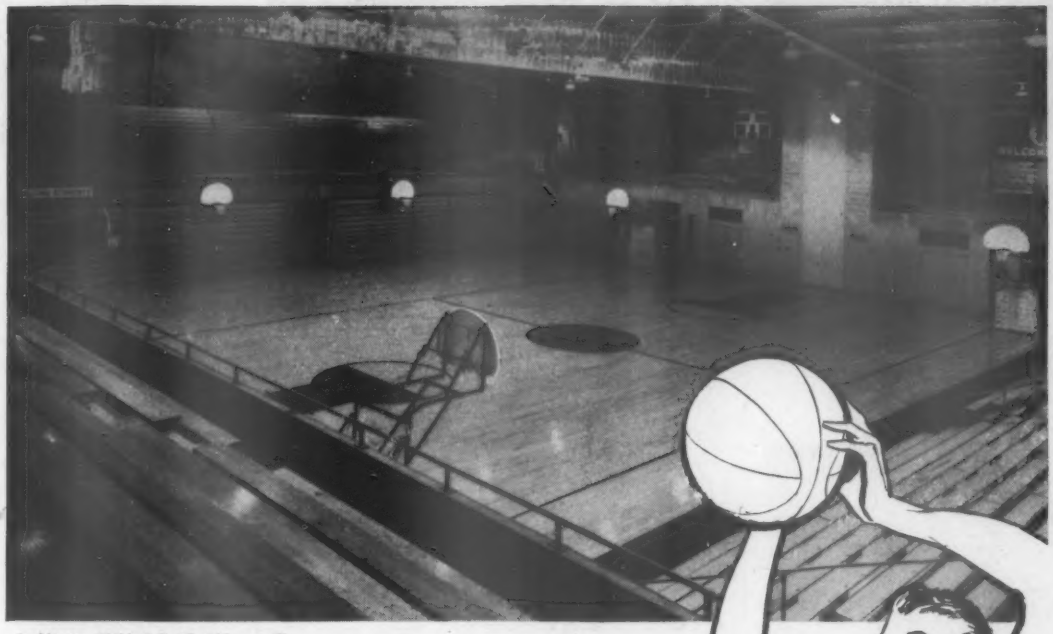
GROWTH OF INTERSCHOLASTIC SPORTS 34
Stephen Epler

6 FEATURES

FROM HERE AND THERE 4
EDITORIAL 16
COACHING SCHOOL DIRECTORY 36
NEW ITEMS 48
NEW BOOKS 60
BUYERS GUIDE 63

FRONT COVER ILLUSTRATION

The co-captains for next fall's Everett, Mass., High School team posed for our cover picture. The blocker is Joseph Herlihy, tackle, and the boy being blocked is William Vetrano, fullback. Of interest is the fact that Herlihy weighed 274 pounds when he reported for the team at the age of 13. His playing weight for this fall will be 225. *Durland's Photo Service*



Architects: Childs & Smith, Chicago, Ill.

The modern Hinsdale Community High School gymnasium at Hinsdale, Ill., is equipped with two Porter 225B Field House basketball backstops, two Porter 235B Floor "Rollaway" backstops and four Porter 212B Balcony backstops. All have Porter 237B Fan-Shaped All-Steel backboards with Porter 210B Official goals. This selection of equipment permits unusual flexibility of use.

Hinsdale High has "Porter"

at leading gyms from coast-to-coast the choice is Porter

Porter basketball backstops are trim and attractive. They harmonize with the best modern architectural design. They are strong and durable. They are easily operated when movable, or removable. But above all, they meet the requirements of the building conditions and of the gymnasium program . . . These are the principal reasons why Porter basketball backstops are in use in so many of the nation's leading schools, universities, clubs and community establishments. Porter engineers know from many years of experience how to deal with *every* type of installation . . . Why don't you avoid disappointment and unnecessary expense by letting Porter engineers help with your problem? No obligation. Porter engineers can aid too in wisely planning the selection and arrangement of gymnasium apparatus, based on your class or group needs.

EQUIPPING A GYM?

Whether you are planning a new building or equipping an old one, Porter's seasoned engineering staff can be helpful to you. No obligation. Write today for free counsel.

Nearly a Century of Quality Manufacturing

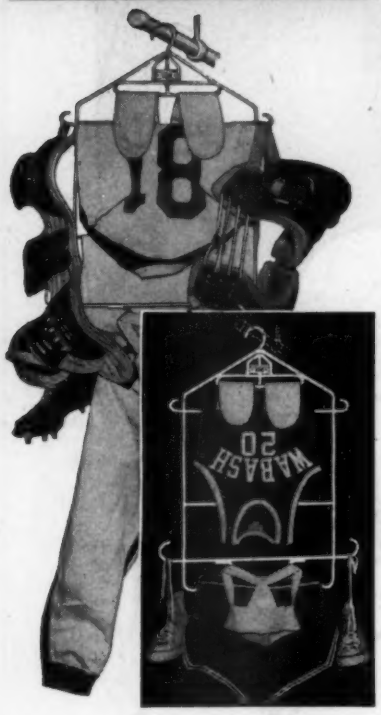
THE J. E. PORTER CORPORATION Ottawa, Illinois

Manufacturers of Gymnasium, Playground and Swimming Pool Equipment

CHICAGO OFFICE: 664 N. Michigan Ave., Chicago 11, Phone: SUperior 7-7262

NEW YORK OFFICE: 11 W. 42nd St., New York 18, Phone: LOngacre 3-1342

ALL-AMERICAN
HEAVY-DUTY
UNIFORM
HANGER



Faster, More Thorough Drying . . . Much More Hygienic and Efficient Handling For All Athletic Gear

Accommodates *all* of a player's football, basketball or baseball gear, solves the old problem of *drying* and *storing* sweat-soaked equipment. Ruggedly made—extra heavy steel rod, electrically welded into a strong, one-piece unit. Molten tinned finish protects permanently against rust and the corrosive action of perspiration.

Each, complete with Number Plate, f.o.b. our Texas Mill **$1.60**

★ *Write for literature on American Approved Gymnasium Baskets, All Steel Basket Racks, Foot Baths and Dressing Room Equipment.*

AMERICAN
PLAYGROUND DEVICE CO.
ANDERSON, INDIANA
WORLD'S LARGEST MANUFACTURERS OF FINE PARK, PICNIC, PLAYGROUND, SWIMMING POOL AND DRESSING ROOM EQUIPMENT

from here and there

ONE of the real oddities of sport is to be found in a study of the records of the members of the newly formed Ivy League. The various teams in the new league have played 976 games in the past, and the percentage of victories runs in reverse alphabetical order: Yale, .653; Princeton, .618; Pennsylvania, .593; Harvard, .539; Dartmouth, .4362; Cornell, .4357; Columbia, .314; and Brown, .257 . . . An estimated 11,000 Michigan high school players will have competed in the state basketball tournaments this past month . . . When Clint Evans retires July 1 as baseball coach at California, he will take with him a record of 531 victories against only 242 losses. Sam Chapman, Bill Werle, and Jackie Jensen are three of Evans' proteges who made good in the majors . . . For the first time in the 47 years they have had football, Loras College appointed an alumnus as coach. He is Ed Murphy who graduated in 1949 and began coaching at Colmar, Iowa, High School. After a year he moved to Trinity High School in Bloomington, Illinois. His record shows only four losses in four years . . . Many economists to the contrary, there is no recession in prospect, at least not in the sporting goods industry. The Adler Company, makers of Adler socks, recently put their plant on a 24-hour day. In the same mail comes an announcement that the Voit Rubber Corporation is spending a million dollars for expansion of facilities . . . Coaches who are seeking summer employment as camp counselors may send applications to Mr. J. O'Shea, Camp Unit, New York State Employment Service, 1 East 19th St., New York 3, N. Y. There are over 1000 positions available at this time.

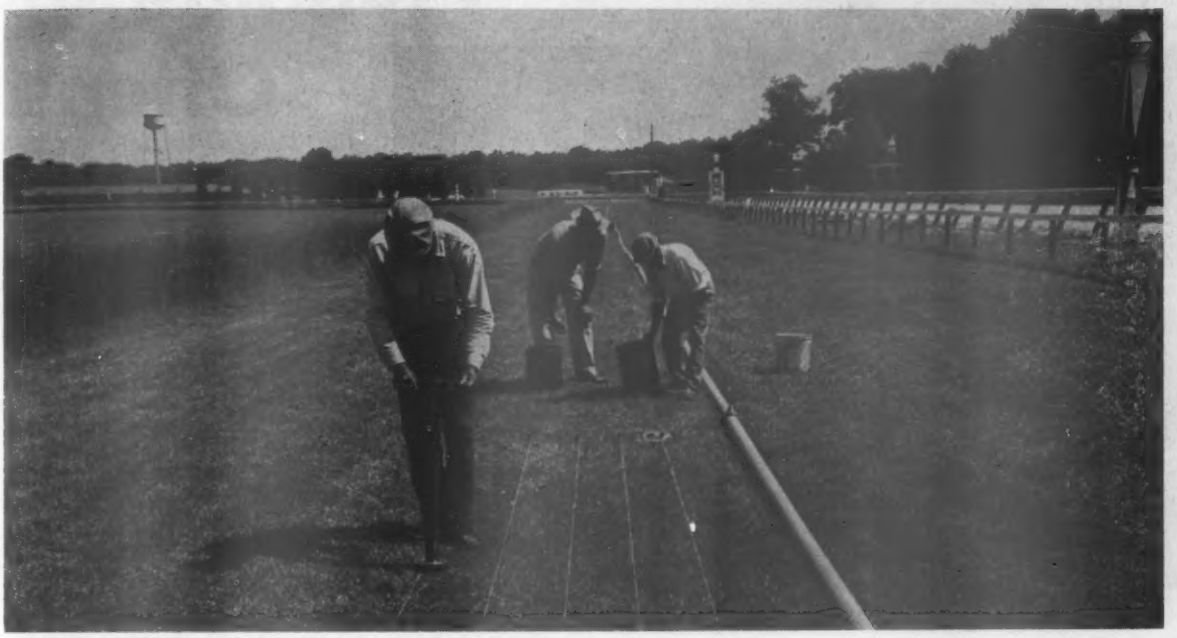
• • •

UP to this year the Iowa tournament has been held 30 times. During that time 31 different records have been established. The name of Davenport High School appears on 12 of these records. Since this is almost 40 per cent, we wonder if any other school can boast a better percentage in its records of state tournament participation? Interestingly enough, 7 of the 16 finalists this year are schools with less than 100 boys enrolled . . . For the girls' tournament only 2 of the 16 schools had more than 100 girls and one school had but 10 . . . The new look in physical education is best exemplified in this statement from Professor Paul S. Graham, director of physical education at R.P.I. "We are convinced that skills in sport, while they may not build as much muscle as the old drills in calisthenics, are stimulating athletic interests which will continue through the years. We are sure they will be greatly more useful and pleasant than conditioning exercises which are usually stopped very promptly when the college's requirements have been filled." During the winter all R.P.I. students are required to ice skate for an hour every day . . . Eighty-two and two-tenths per cent of students participating in football and basketball at Stanford in recent years have graduated. This compares with the figure of 75 per cent for all men students . . . When Bob Giegengack, Yale track coach, was coaching at Brooklyn Prep his relay teams won at least one first place in the Penn Relays for seven consecutive years . . . "Frosty" England, who goes to Toledo University, has an enviable coaching record since he entered the coaching profession at Perry, Illinois, High School in 1935. Twelve years of high school coaching show a .717 percentage and his college record shows 55 games won or tied out of 75 played . . . Dr. Wilson Elkins, president of Texas Western College at El Paso, was one of the greatest athletes in the history of the University of Texas. He earned three letters in football and basketball, two in track, and was captain of the 1932 basketball team.

• • •

CHUCK MATHER, new Kansas coach, employs such a complex system of grading players and plays that he uses IBM machines to sort the cards which contain recorded information. The machines can sort 650 cards per minute and thus in a few minutes he can learn everything he wants to know about plays against, for example, a 6-2-2-1 defense. It takes Chuck and his staff ten hours to record the information from one game.

Could YOUR playing fields stand up under HORSES' HOOFS?



Ground crew at Laurel Race Course installs Meyer Z-52 Zoysia plugs in Merion Blue Grass turf course, site of the famed Washington, D. C., International Turf Classic.

These tough, beautiful grasses from SUMMIT HALL TURF FARM withstand even the thundering hoofs of the world's finest thoroughbred race horses. They can help you build the dense, permanent, safe turf cover that your athletic program demands.

Choose from these three premium sods the superior grass best fitted for your climate . . .

- MERION B-27 BLUEGRASS — $1.25 per square yard
- U-3 BERMUDAGRASS — $1 per square foot
- MEYER Z-52 ZOYSIA — $10 per box of 100 2-inch plugs

BUILD YOUR OWN SUPERIOR TURF NURSERY TODAY!

America's First Turf Farm, pioneer producers of quality lawn sod, has plentiful supplies of the new, plugging-type grasses that spread quickly, build a firm, resilient cover for your fields.

IMMEDIATE SHIPMENT ANYWHERE — UNLIMITED QUANTITIES

All prices F.O.B. Gaithersburg, Maryland. Call or write William H. Wilmot, owner-manager, at Gaithersburg 533 for further information.

FROM SANDLOTS TO THOROUGHBRED RACING

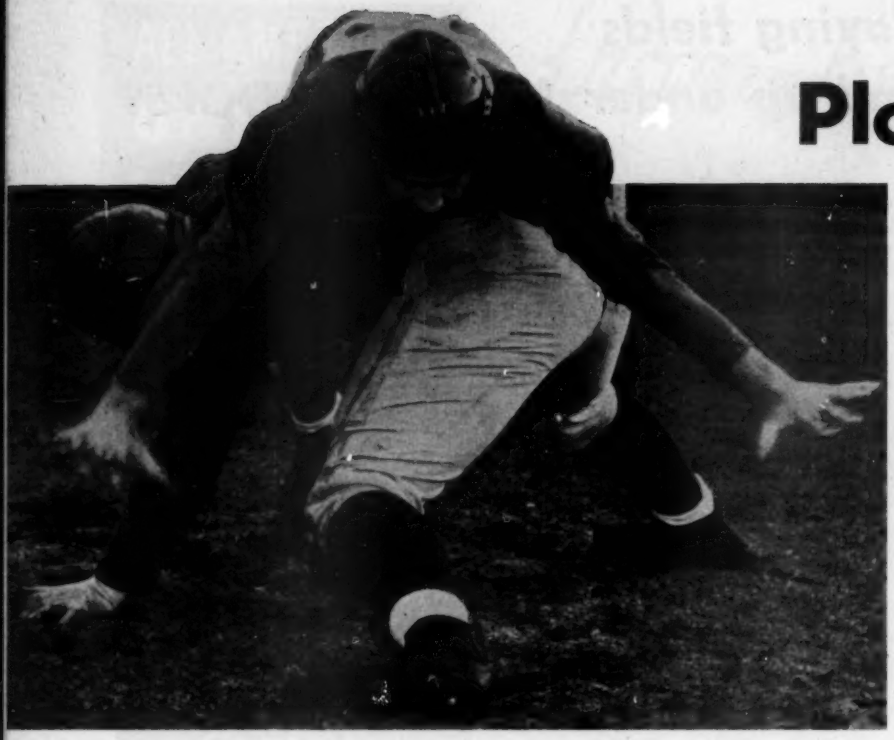
. . . satisfied athletic customers of Summit Hall Turf Farm include . . .

- Griffith Stadium, Washington, D. C.
- Duke University
- Landon Prep, Washington, D. C.
- Andrews Air Force Base
- Baltimore, Md., Housing Authority
- Winston-Salem, N. C., Housing Authority
- Passaic, N. J., Park Commission
- 27 Golf Courses and Country Clubs
- Laurel Race Course (see above)

SUMMIT HALL

The First Turf Farm of America

Gaithersburg, Maryland



Planning the Offense

By DENNIS GILDEA

Football Coach,
Everett, Massachusetts, High School

GENERALLY speaking, a college coach can change his offense without compunction. However, at the high school level, football is never worked out that way. High school football coaches take the beginners, indoctrinate them to the game, and make the best of what has come to them. If, in a given year, there is a shortage of backfield material what does the high school coach do, take up a new system of football? If he is wise, he will not discard his offense, but will improvise new methods to work the same bread and butter plays.

Now, let us take up the subject of offensive football in high school. It is only natural that we should start with the T formation because no one will deny that it is the popular formation of the day. We will assume that those coaches who have been sold a bill of goods on the T will have screened their squads, taken inventory of their assets, and now are deliberating on their method of attack.

Let us say to all T coaches that the line play will be basically the same regardless of what cycle of plays is run. The decision to make on the cycle of plays to be employed should depend a great deal on the type of backfield material available.

The first fundamental we all have to teach is the stance for the linemen. It is not our policy to specify actual inches, but rather we tell the players that the spread of their feet should be slightly wider than the width of their hips. Spreading a lineman's legs is not the easiest way to spread a defensive line. A split of the line will accomplish that. We find that with a narrow stance a lineman has more agility and is able to remain balanced.

We do not designate which foot should be back; however, we do teach that the toe of the foot that is back should be even with the heel of the other foot. It seems to us that it is easier to pull out of the line and block, or run interference from this position. In our system all of our linemen except the ends pull, so they all use the same stance.

Assuming the right foot is back, we instruct our players to put the right hand forward so it is lined up with the right knee. The first and second knuckles rest on the ground; the opposite hand and arm rests comfortably on the thigh or knee of the left leg. The player's weight is balanced on the balls of both of his feet and is slightly forward. His head should be up, eyes straight ahead, neck bulled, shoulders squared off, hips lower than his shoulders, and his back should be straight. From this comfortable position it is possible to block straight ahead, pull out, cross-block, or draw back.

At this point we want to discuss the merits of a line getting set after it comes out of the huddle as compared to the line that employs a pre-shift. The line that assumes its position at once usually does so on the command of the quarterback. This line is very apt to be one with little uniformity of action. It may be a very cautious method of protection against off-side penalties, but it does not inspire hard fast charging. The players in a line that uses a pre-shift have an upright stance, their feet are spread to regulation, weight distributed evenly on both feet, knees slightly bent, rumps down, heads up, and eyes looking straight ahead. From this position the quarterback calls "Ready, Set." Use of a pre-shift makes the team look good and it injects confidence into the charge and blocks of the linemen.

The cadence of the signal-caller is important for the offensive line. We do not go in for the half counts. It was tried, and the players did not like it. We call "Ready, Set" and then call single digits, varying our starting number as we see fit.

Now that we have explained line stance, and the alternative technique, the next step in the development of this article is teaching the technique of pulling out of the line. A pull to the right when the right foot is the back foot, calls for a shove off with the knuckles of the right hand and off the sole of the left foot. As the player turns he is practically pivoting on the heel of his right foot. The player can react a trifle early with his right foot, thus gaining a half step. His left arm and left hip should be swung around fast, and his body should be kept low over the thigh of his right leg. The player must swing his arms while he is running.

When pulling out to the left, we have the players shove off with the knuckles of the right hand and the

sole of the right foot. With the left foot forward, we have the lineman give four to six inches from the line of scrimmage while making the pivot with his left foot. While pivoting he swings his right arm and hip around.

A drill is employed to perfect our linemen in the technique of pulling out of the line. We place the linemen across the field, side by side, all facing the same way, and have them count off in threes from right to left. Then they take the pre-shift stance and on the command, "Ready, Set," all of the linemen take their offensive positions and the No. 1 men pull out to the right and go through the hole left by the next No. 1 man. Diagram 1 shows this drill.

By rotating, all of the linemen become the No. 1 man in turn. The centers are the end men and they practice for reaction time, as well as the ball exchange with the quarterback. The quarterbacks practice the forward pivot, reverse pivot, and other maneuvers pertinent to their position.

Next, we teach the guards what to do when they pull out. If the right guard is to block the defensive left end, he must almost step on the heels of his tackle, and endeavor to block on a concave route, inside out. If he meets the end at a right angle, then he uses a strong head and shoulder block; if he meets the end two yards into our backfield he uses a reverse body block; if he meets the end on the opponent's side of the line then he uses a full body block after chasing through to get at him. This same method is employed by the guard when he is putting a trap on the tackle.

We also practice these drills, using the fight back type of dummy, with the linemen sharing turns on defense. This defense experience helps to impress on each player how effective good blocking can be.

Next, we teach the guard the off-tackle play with the weak-side guard leading the ball-carrier. We chart the guard's course, using lines which are drawn with flour sprinkled on the turf.

The guard must slide through the space between the center and the quarterback, running as close to the line as possible. He then cuts through the tackle opening to face the linebacker who is represented by a standing dummy or a moving object which is padded. The guard will try to drive the linebacker back with his head and shoulder.

Our guards are taught the method of working on the end sweep. The first guard runs close to the line, swinging his arms with his back well bent. He swings out around the early block thrown by the lead back, and throws a running block on the first opponent he meets. The trailing guard slides between his quarterback and center and then swings four yards deep, to lead the ball-carrier. He uses a full body block on the first opponent he meets.

The center has all these assignments on occasion; consequently, he has to be trained to hit and run effectively. He pulls and he traps, and he must be able to pass. We believe the center should use the two-hand pass. When learning to snap the ball he endeavors to drive it so hard to the quarterback that eventually he will draw blood from the quarterback's hands.

DENNIE GILDEA graduated from Holy Cross in 1922 where he was captain and All-Eastern center. He coached at Fitchburg and Leominster before going to Everett in 1926. His coaching record shows 184 games won, 72 lost, and 30 tied. His teams have been state champions six times. He served for four years as a high school representative on the American Football Coaches Association Rules Committee and is a past president of both the Massachusetts Coaches Association and the Massachusetts Football Coaches Association. The second part of this article which appears next month will stress the plays that Gildea has used so successfully in his offense.

The tackles come in for their share of blocking. They employ trapping blocks mainly and check blocks. The trap blocks require a pattern similar to that employed by the guard, but the check blocking is peculiar to the tackle. This block is used to fill or plug a gap left by a player pulling out of the line. In order to be able to check block effectively the blocker must know and study what his defensive opponent is likely to do. There are three different blocks for this maneuver which should be taught to the tackles. These are the cross-body block, the reverse shoulder block, and the shoulder check.

We teach our tackles to use a cross-body block if the defensive man employs a slow charge. The blocker steps and pivots on his inside foot, crosses his body in front of the defensive lineman, and thrusts his hands to the ground. He keeps his head up and his eyes open. When he makes contact he should keep his feet spread, working to apply a knee hook with his outside leg. His inside leg must be kept straight for the brace.

If the opponent charges fast, the tackle is told to use the reverse shoulder block. And finally, when the defensive man moves laterally the tackle uses the plain shoulder block in filling the gap.

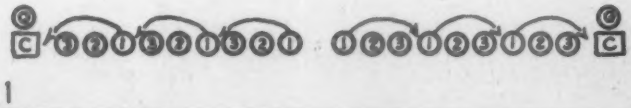
The ends use a combination of all these blocks, plus the peel back block. The end must be able to trap back, over the center. He must wedge block, and he must straight block. Without a doubt, the ends must be the most versatile blockers on the team.

For the straight man-for-man block we teach our players to drive the helmet straight at the buckle of the defensive lineman's belt and to keep their legs driving. Their arms should be bent and carried shoulder high, with their hands clasping the jersey; their feet must be kept well spread and their bodies should be in a semi-crouch position. Wedge blocking consists of straight blocking in teams of two, three or five men.

Blocking for passing can be taught the linemen on this theory. On short quick passes the linemen charge hard and low at the defensive opponents; on long passes that take time the offensive linemen drop back a step and block; if there is no one to block, they back up a second step and look. Of course, if it is a running pass, we use the method similar to a running play with the far guard peeling back for a block to protect the passer's blind side.

Linemen blocking for the kicker should take a short step with the inside foot, lift up slightly, and protect with their shoulders. They should always block in toward the center.

Blocking from the popular spread is simple enough. We teach our players to hit the outside man with the near shoulder, and go on down under the punt.



DIAG. 1

6

5

4

3

Illustration 1 was taken about 10 to 15 feet prior to the board take-off. Notice that Bennett toes out slightly but not enough to hurt his forward progress. He has settled into a float at this point in anticipation of his take-off. His forward lean is fair.

Illustration 2. At this point John is starting his board stride and it can be seen that he is ready for the drive off the board. He still seems most relaxed and is driving well off his toes. His forward body action is very good.

Illustration 3. John's right foot has come in contact with the board and a definite roll back on the heel of his take-off foot is shown. The center of gravity at this point is slightly in back of the foot. His jumping leg is bent a little and a lift of his upper diaphragm is very noticeable. A roll from heel to toe is also noticeable at this point.

Illustration 4 shows the roll from heel to toe at its best. Bennett's diaphragm lift is good and his arms come up with this lift to promote balance. His take-off leg is at full extension and his left knee lift is very good. The center of gravity at this point is in advance of his take-off foot and according to theory this should be the proper form.

Illustration 5. At this point John has just left the board and his elevation is just starting. We would say that in this illustration his upper body is much too erect and does not promote relaxation. His arms show good position and are lifted well for balance. His hitch kick type of jump is started with his left leg leading.

Illustration 6. Elevation is good at this point of the jump and John's upper body has come forward a little to promote relaxation. His head is well up and his arms are raised high for balance. His take-off leg is advancing forward at this point.

Illustration 7 shows that Bennett's take-off right leg has advanced forward while his left leg is trailing in preparation for completion of the hitch kick. His arms continue to be in good position for balance. At this point his back seems arched a

12

11

10

9

Broad Jumping

Demonstrated by

JOHN BENNETT

1953 NCAA Champion

By MELVIN SHIMEK

Track Coach, Marquette University

THE distance achieved in the broad jump today does not exceed the distance attained in previous years but we do believe that more men are jumping greater distances than those of the past. The world's record of Jess Owens is still secure and few men have come close to his record jump of 26 feet, 8¼ inches. Many competitors have flirted with distances of from 24 feet to 26 feet but to go beyond that figure seems to be an amazing feat.

We have found that our best jumpers are men of average height who are strong and of the wiry type. They possess long tapering muscles which are well developed. Speed in this type of athlete is predominant and spring must be an important characteristic.

Looking back over the years, we can remember many Negroes who were outstanding men in this event. To mention Hubbard, Gordon, and Owens, who holds the present world's record, might recall a few capable performers. At the present time we find that most of the best broad jumpers in college circles are white athletes.

The young man we are writing about is a fellow who probably does not fit the picture as far as physique for broad jumpers is concerned, but we must admit he has other sterling qualities.

John Bennett is twenty-two years old, weighs 147 pounds, and is 5 feet, 7 inches tall. He has long tapering muscles and there is no doubt about his speed and spring. Besides these qualities, John is the type of competitor who is at his best when competition is keen. He definitely is a pressure performer and is that type of relaxed athlete coaches dream of and so seldom have on a track squad. Referring to John's speed and spring, we might say he can run a 100-yard dash in 9.8 and his best height in the high jump is 6 feet, 5½ inches. This height is amazing when one considers his 5 foot, 7 inch stature.

Bennett's run for the jump varies from 128 feet to 140 feet in length. The speed of his run is about 85 per cent of his maximum and, as a result, his performance is definitely a relax-

(Continued on page 48)

2 **1**

little too much.

Illustration 8. Height is well established at this point. Bennett's right leg is ready for extension and his left leg is ready for forward action. His body is a little too erect at this point—a slight lean forward would be much better for forward mobilization.

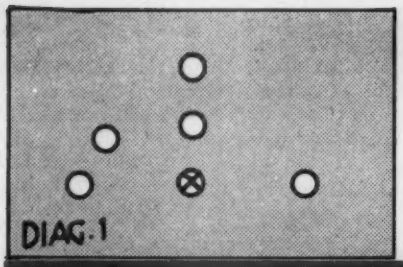
Illustration 9 shows good height, legs well tucked, and arms moving forward—in preparation for the dismount. However, John's body is still too straight.

Illustration 10. At this point both of Bennett's legs should be extended forward with a very slight bend at his knees. His arms are extended forward in good form and his body pitch is well forward. Ordinarily, John's right foot does not drag as is shown in the illustration. At least, we have not noticed this error in form.

Illustration 11. Good form is shown in the dismount. John's knees are relaxed and the forward lunge of his body, arms, and head might be called very close to good form. This particular action will prevent his buttocks from coming in contact with the pit.

Illustration 12. The continuance of the dismount shows the tremendous forward drive. John completes his jump with forward action out of the pit. Many jumpers swing to either side on completion of the jump.

8 **7**

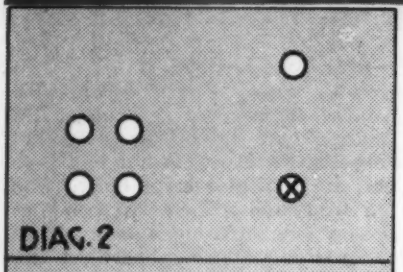


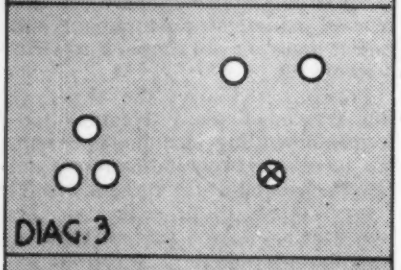
Defense Against Six-Man Spreads

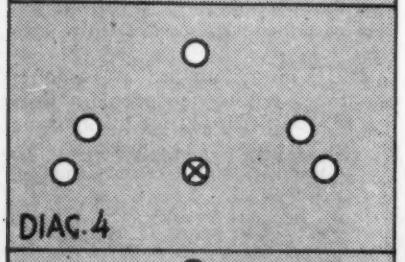
The growth of six-man football has been one of the really bright spots in the interscholastic picture. (See page 34) We of the Athletic Journal believe that six-man football affords the smaller schools an opportunity to enjoy all the benefits of football which otherwise would be denied them because of limited finances and manpower. For that reason we have devoted considerable editorial space since the war to the six-man game.

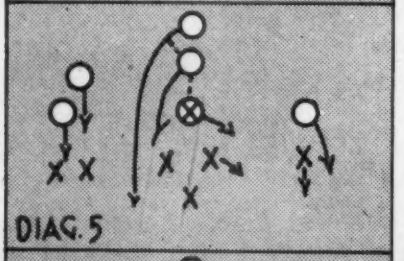
By ANDREW W. GRIEVE

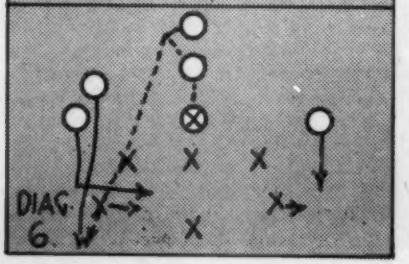
Athletic Director, Van Etten, New York, Central School











THE spread formation in six-man football can be extremely devastating. With so few players on the field and everyone eligible to receive a pass, the defense has quite a problem. In the *May* 1952 issue of this magazine we wrote about our optional spread formation. Since that time one of our greatest problems has been how to stop our own spread offense and spread formations similar to it.

As mentioned previously, the spread is particularly effective in six-man football. If the defense plays normal, then the main threat is the pass. If the defense adjusts to cover the pass receivers and plays a man-for-man defense, as is often done, then a running attack will be most effective. Our defense is a modification of both.

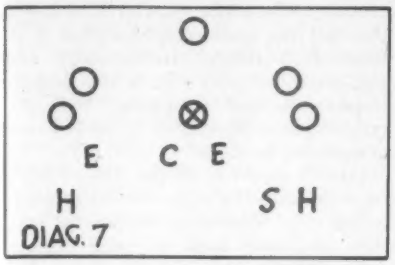
In order to comprehend the problems we faced and similar ones which other six-man coaches might meet it will be necessary to diagram various types of spread formations. Diagram 1 shows the optional spread formation which we encountered most frequently. Since there is a clear pass on every play the deep man has the option of running or passing, his choice being determined by the reaction of the defense. A unique spread formation with four offensive players well away from the spot of the snap is shown in Diagram 2. Diagram 3 shows a similar formation, but there are two backs located behind the snapper which strengthens the threat of a run. Another type of spread which can be dangerous is shown in Diagram 4. At first, it appears as if the only possible play is a pass. However, by putting either halfback in motion towards the ball the threat of a run is added. Undoubtedly, there are a great many variations of the spread, too numerous to mention. These few, as diagrammed, should give an idea of what the defense must face.

The defensive team must shift with the offense. There is no point in playing three defensive men in a location where there are only two offensive players. The defensive strength must be in relation to the offensive strength. In many cases, however, the offensive strategy is not to utilize the area where the greatest number of defensive players are located, but rather to weaken the defense by spreading the players out and away from the ball.

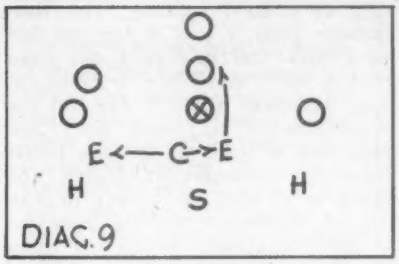
When playing against a man-for-man defense one good block by the offense can shake the ball-carrier free for a long gain. A situation of this kind is shown in Diagram 5.

Against a team that plays a zone defense it is quite a simple matter to free a pass receiver by sending decoys out. This situation is shown in Diagram 6.

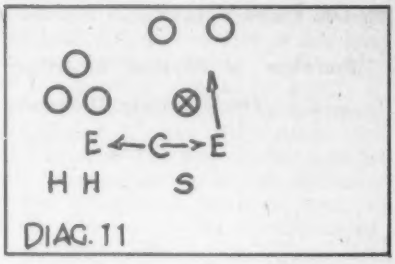
Since the man-for-man defense is best against passes and the zone principle is best for running plays, we utilize both in setting up our defense. As the offensive team comes out of its huddle and shifts into a spread, the outside men are covered man-for-man. The defensive players who cover them are determined by the particular offensive setup. We always place two defensive linemen about two yards on either side of the ball. The two halfbacks and an end cover the outside men. The safety man will cover an outside man if four



DIAG. 7



DIAG. 9



DIAG. 11

players are flanked; otherwise he will line up with the ball about seven yards from the line of scrimmage if there are three men in the vicinity of the ball. These two variations are shown in Diagrams 7 and 8.

In the situation which is shown in Diagram 9 the defense is faced with the optional spread out of which the deep back may run or pass after receiving a clear pass from the short back. The two defensive halfbacks and one end, the left end in this case, play man-for-man to protect against passes. The right end charges at the snap of the ball directly for the deep back at about three-quarters speed. By charging too rapidly the deep back may elude the right end too easily. Thus, the right end will force the deep back to make his move, either by throwing a pass or determining the direction of the run. This end should be the best tackler on the team.

Meanwhile, the defensive center holds his ground at the line of scrimmage. He can hold the center from going too far downfield for a pass if he has time, but his main job is to patrol the scrimmage line. Once the defensive end has forced the deep back to make his initial move the defensive center will move accordingly. Since the deep back will be several yards from the line of scrimmage, the center should be able to get to him before he has made any appreciable gain. Also, the defensive center is in good position to protect against any short passes up the middle close to the line of scrimmage.

The safety man, against the spread as shown in Diagram 9, is also in position to check the offensive center on pass plays or come up fast for the tackle if the run option is chosen. He must, however, always be wary of a running pass and not make his move prematurely. The other three defensive men charge the ball-carrier as soon as it is obvious that the play is a run.

Diagrams 10 and 11 show the defensive positions on two other spread formations mentioned earlier. The same principles apply as mentioned in the preceding paragraph.

Diagram 12 shows the defensive reaction to a man-in-motion. In all spread formations which use a man-in-motion the defensive player assigned to the halfback who moves will go with the motion. Thus, we maintain our defensive balance. In any play similar to the one shown in Diagram 12 the charging end may very well break up the entire play if he times his charge so as to hit the man-in-motion just as he receives the ball. This charge by the end may result in a costly fumble by the offense. The end may even intercept the pass. The center will be in position to stop the play if the man-in-motion attempts to run in the direction of his motion.

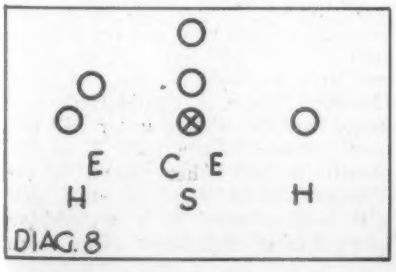
If the ball is snapped directly to the deep back in any spread, and if there is no man-in-motion who may receive a short pass behind the line of scrimmage, then the defensive center must drop back and watch the offensive center for a pass since the run option is impossible. The end still harasses the passer.

Our basic premise is that a good defensive end will force the ball-carrier to commit himself and once the end does this the center is in position to stop any advance over the line of scrimmage. In many cases our end has made the tackle well behind the line of scrimmage.

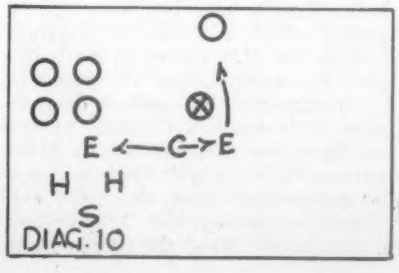
In setting up a defense against the spread in six-man football the coach must make a careful evaluation of each player's strengths and place him accordingly. The boys who play man-for-man against the pass option must be fast and good pass defenders. The charging end, as mentioned earlier, must be the best tackler on the team. The center must also be one of a coach's better tacklers, while the safety man should be adept at both pass defense and tackling. Naturally, the material will determine what players will be placed where. We have found it advantageous to make several shifts in our defensive alignment against the spread in order to take advantage of individual strengths.

In conclusion, a team must be well versed in the fundamentals of defense. This defensive pattern will not act as a cure-all if the team can neither tackle nor defend against passes. This pattern is merely an adjustment to an abnormal offensive pattern; nothing can take the place of defensive fundamentals.

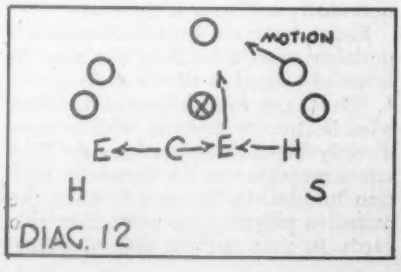
ANDREW GRIEVE played football and basketball at Colgate and Villanova and during the war at North Carolina Pre-Flight. He started his coaching career at Wellsburg, New York and four years ago moved to his present location at Van Etten.



DIAG. 8



DIAG. 10

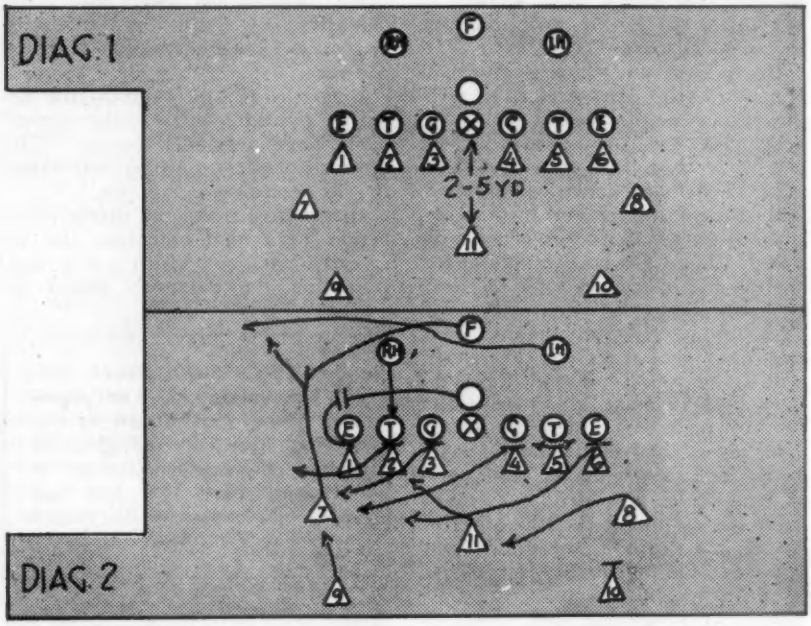


DIAG. 12

By DR. DON VELLER

Professor of Physical Education,
Florida State University

A Workable Split T Defense



SINCE the split T is so widely used, and so frequently written about, it behooves us to discuss a workable way to *defense* it. We want to point out that the defense discussed in this article is not entirely original with us. A great deal of it came from a prominent Eastern coach whose name, for obvious reasons, will not be mentioned. It has been embellished to some extent by our ideas, plus *bull sessions* with colleagues, and the study of game movies. The principle thesis in this defense is to hold the offense to three yards or less per play — not necessarily to throw it for losses!

Each of the six linemen assumes a position *exactly* head-on the man in front of him as is shown in Diagram 1. Thus, the lone offensive lineman who is not confronted with a man directly on him is the center. The one exception to the head-on position for the six linemen is when the offensive players split more than two yards. In that case the defensive linemen keep their spacing. The linebackers (Nos. 7 and 8) line up one yard back and one yard out from players No. 1 and No. 6 respectively. The halfbacks (Nos. 9 and 10) are approximately six yards deep and each one is lined up on the inside leg of the linebacker on his side. The safety man, who has a very important job, assumes a position from two to five yards deep, depending upon the tactical situation.

Now, in order to implement the explanation of individual assignments and tactics let us look at Diagram 2. This diagram indicates what might happen against the pop-option sequence. Each lineman comes up under the chest of his opponent to control him and is responsible first to his inside. Then he moves to the play as indicated by the apparent pressure of his opponent, remembering again, that no concerted effort should be made to throw the opponent for a loss, but merely to hold him to three yards or less. All of this applies to each of the six linemen.

The ends have especially strategic duties. Let us take No. 1 in the sequence which is shown in Diagram 2 when the play comes in his direction. The same tactics will apply to No. 6 when the play comes to his side. Since it is quite a distance to the end from the quarterback's original position, with the split line, and since the quarterback comes down the line reasonably slowly, No. 1 has time to play both sides of the end in front of him. When the quarterback keeps the ball the end's responsibility is to make him throw. Incidentally, the end on the strong side is also largely responsible for stopping the off-tackle play. Numbers 6 and 1 are designated as ends.

On all plays it is the linebacker's responsibility to stop the wide plays to his side. Therefore, he would take the pitch-out man on the option series. The linebacker's diagnosis will be aided considerably if he watches the angle of the fullback or the halfback coming around to his side. On a running pass to his side the linebacker will rush the passer.

The safety man helps on the pop play and also takes the pop man all the way on passes to him. The halfbacks key on the ends and are more responsible for the inside than the outside on running plays.

When the quarterback starts the other way the end and the linebacker on the weak side can take off and chase the play as is shown in Diagram 2. On this maneuver the weak-side tackle will play more conservatively, watching for the counter. There may be some coaches who will say that the counter stuff will hurt a team if the end and linebacker chase the play. However, there is considerable evidence that the wide counter will not beat a team in the split T as frequently as the other phases of the offense. Let us stop the stuff that will beat a team! It is astonishing how chasing defenders often turn

what appears to be a long gainer into short or no yardage.

The real task, however, in defending against the split T and possibly other formations as well, occurs when the defensive players are asked to adjust to meet several varieties of flankers. We would like to deviate slightly from the main topic of this article and speak briefly about flankers in general as they relate to defense. This advice is especially pertinent to young and/or beginning coaches. If the young coach does not take advantage of at least three different flanker line-ups (Diagrams 3, 4, and 5) then perhaps he is making the jobs of the opposing coaches easier for them. Naturally, it will not be necessary to use all flanker alignments in equal amounts. These variations should be shown, however, if for no other reason than to worry the scouts and subsequently the head coaches and players of future opponents.

IN the October and November issues Don Veller presented two articles on defenses against the single wing. The number of requests he received for material on a defense against the split T prompted this article. After a long and highly successful coaching career at Indiana University, his alma mater, Elkhart, Indiana, High School, Hanover College, and Florida State, Veller retired last year to devote full time to his professorship in the school of physical education at Florida State.

However, there are more tangible problems involved in defending against varying flankers. In this case we are speaking specifically of those flankers attached to the split T offense. It might be added, however, that most of them apply as well to other offenses. Some of the problems encountered in changing a team's standing split T defense, as shown in Diagrams 1 and 2, to meet varying flankers, will pose the following questions for the coach. How can I adjust adequately without changing too many personnel assignments and positions? What changes must I make to defend adequately against passes? Does the flanker have too much blocking angle advantage? Do they still have pop possibilities on either side? Where is their strength centered?

Let us make adjustments in the defense explained and shown in Diagrams 1 and 2, answering as nearly as possible the above questions. Let us try to bear in mind especially the answer to the first question.

As inferred previously, the three most frequently used and effective flanker variations are shown in Diagrams 3, 4, and 5. The one thing common to the defenses used against all four variations, including the one shown in Diagram 2, is that the assignments of the six linemen remain the same. Thus, there are six men whose assignments do not change at all!

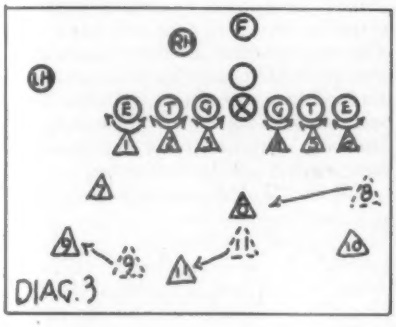
One of the most frequently met flankers is the one shown in Diagram 3. When we refer to *right* and *left* we mean to the *right* and *left* of the defensive players. Since the left halfback has moved over to the left, strength is taken from the right side (including the potent pop) and added to the left. Also, the passing potential is better. Notice that there are ostensibly only three personnel shifts in the defense.

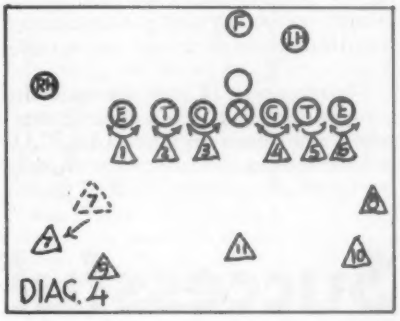
The right linebacker (No. 8) moves over to the spot where the safety man was originally. Then he watches especially for sneaks, the right pop, and, of course, plays the play to either side. The safety man moves back and over to the strong side to help the left side back (No. 9) on passes and runs to that side. The left side back has moved over to his left and up some in order to be ready for flat passes or runs to his side.

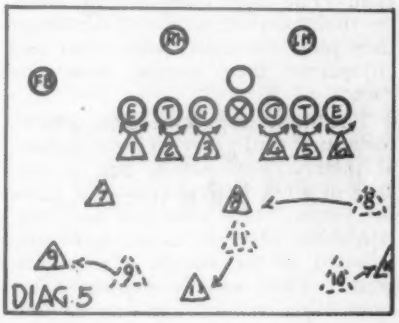
Frankly, the formation as shown in Diagram 4 is quite difficult to defend against. The pop to the right is still there as well as a fast pitch-out to the fullback or halfback. Also, a fairly effective option play remains to the right. The option play to the left lacks only the pop threat. In order to provide some compensation for the fact that they now have the right halfback in good pass receiving position, and a blocking angle, the backer (No. 7) moves back a yard and out the same distance. This is the only adjustment from the standing T alignment.

The fullback flanking as shown in Diagram 5 also poses defensive problems. The pop is still there to both sides. The option sequence to the left is perhaps better than ever. Although one blocker is missing, the option play is not too bad to the right. It is strong for passing, especially to the left, where both the fullback and the end can move out fast. To defend against this situation No. 8 moves over, the same as is shown in Diagram 3, watches for the sneak, pop to both sides, and plays the play. In order to compensate some for No. 8's move to the inside, No. 10 slips to the outside two to four yards. To compensate for the increased running and passing threat to the left, the safety man (No. 11) and the left side back (No. 9) move four or five yards in the directions shown in the diagram.

May we conclude by saying that there is no perfect defense against any football attack? However, we have used the defense described in this article and found it highly successful. If you are one of the many coaches having trouble finding a defense to stop the split T, by all means adopt this one.


DIAG. 3


DIAG. 4


DIAG. 5

Successful Promotion of Tennis

By T. H. VAUGHAN
Winfield, Kansas, High School

THAT tennis can be successfully promoted is clearly evidenced by the outstanding record which T. H. Vaughan has compiled at Winfield, Kansas, a town of 10,000 population. His teams have won 59 consecutive dual meets with schools throughout Kansas and Oklahoma. They have not lost a dual meet since 1947. In the state meet players are not permitted to compete in both singles and doubles yet his players have won 12 championships in 11 years. In his 25 years of coaching his teams have won 18 state championships.

THE tennis program in Winfield has produced moderately successful results, perhaps much better than average for a small community. However, our program is no better than that which any town may enjoy if there is sufficient community co-operation to guarantee results.

The first essential for a successful tennis program is one or more individuals who are vitally interested in the game. They should believe in it and be willing to spend a great deal of time promoting it. There must be someone who works continually for the sake of the game. It is much better if some of these interested persons know something of the game, how it is played, and how to teach others to play. The game will not promote itself; somebody must promote it. Like any sport, tennis must be taught. A town may spend many dollars on court facilities, and certain returns in pleasure from the use of these courts may be enjoyed, but it takes more than courts to produce players. Beginners must have instruction. The more they know, the better their performance; and the better they play, the more satisfaction and enjoyment they receive from the game.

The most important factor, then, for a successful program is the personal interest, enthusiasm, and persistence of a few individuals — the more the better. Our town has had that. A number of other factors have contributed to the success of our program. They will be explained because other communities may have or may develop similar resources.

Tennis in the Schools: Tennis is supported in both the junior and senior high schools. Of course, it is a non-paying sport. That is, it does not support itself as do basketball and football, but our school administration has taken the position that the sport is worth subsidizing. Consequently, the school teams play regular schedules and the players have the same privileges they enjoy in other sports. All trip expenses are paid by the school. The same school letters are awarded in tennis as in other major sports. School courts are located so that boys and girls can play during gymnasium periods. Our physical education teachers give some tennis instruction. The support of the schools for a tennis program is very important.

Summer Instruction: For several years our board of education has sponsored a summer activity and recreation program. Tennis is an important part of this program. Classes are conducted for boys and girls from the third grade on through junior high school. The students are grouped according to grade, and as *beginners* or *second year* in their grade. They are taught by instructors who are as competent as can be secured under budget limitations. At the end of summer tournaments are held to decide championships in each grade group. Every boy and girl who wants free instruction in tennis can receive it.

Tournaments: Local tournaments stimulate interest. One open tournament, sanctioned by the U.S.L.T.A., is held during the summer and local boys and girls are encouraged to enter. The better players in each age division are encouraged to play in one, two, or three sanctioned tournaments which are held in other cities. Both tournament and match play are valuable. Players who expect to become better than average should compete in tournament and match play. As a part of its junior development program, the U.S.L.T.A. designates certain cities as tennis centers, and these cities conduct tennis center tournaments which are open to all young players in the vicinity of the tennis center. At these tournaments young players are helped with their strokes and are encouraged to strive for better play and sportsmanship. The U.S.L.T.A. furnishes medals for winners and runners-up free of charge. Each spring Winfield conducts a tennis center tournament with approximately 100 boys and girls participating.

The high school league tournament is held here in turn and occasionally the regional or the state high school championship tournaments are assigned to Winfield. Any community that has a successful tennis program must hold tournaments. They are an expense but the returns outweigh the costs.

Courts: Our city park commission has built courts for public use. These courts are scattered over town where they are accessible to people who want to play. The two colleges have courts, the high school has three courts, and two indoor courts are available for use in bad weather or for winter practice.

Winfield Tennis Association: This club is composed of adults who are active in tennis or who are *has beens*. The sole purpose of the organization is to promote tennis for boys and girls. Its members are tennis patrons. They are the backlog of a tennis program and any community is fortunate to have such a group of fine supporters.

All sanctioned tournaments which are held in Winfield are sponsored by the association. Several civic organizations co-operate with the association to make tournaments possible. In recent years the Junior Chamber of Commerce has given active support to our big summer tournament. The National Junior Chamber organization has set up as one of its major objectives the promotion of sports, especially tennis, for boys and girls. Our local group has certainly carried out this objective by taking over the Sunflower State Champion-

(Continued on page 41)

PART TWO

The Athletic Trainer

IN SECONDARY SCHOOLS

By RICHARD K. COLE
Athletic Trainer, University of Rhode Island

Last month Richard Cole traced the growth of the training profession at collegiate levels and deplored the lack of properly qualified trainers and training room facilities at the high school level. This section of the article points out the means and steps to be taken in outfitting a training room for the secondary school.

All of us know that there is no substitute for experience. We live and learn. This is just as true in the field of athletic training as it is in any other line of work. Anyone can read theory, take courses in school, and talk shop with people in a certain selected line of endeavor and they may think they are qualified in that field. Trainers are specialists and have a great deal of experience behind them.

In most schools there is no one who puts in more hours of work than the athletic trainer. He prepares and teaches classes, maintains the running of the training room, orders supplies, treats injuries, spends time reading and using the new ideas appearing in literature pertaining to his field, attends meetings, and spends a great deal of time traveling with the teams. He becomes, to most athletes, a friend and confessor. They bring him many of their troubles and seek his advice about trouble at home, school work, financial difficulties, and even love affairs. There is no member of the educational organization closer to these boys than the trainer. Many times a boy would rather confide in the trainer than in his coach. Athletes are very prone to avoid telling a coach of their injuries, illnesses, and problems.

There are many times when boys are not willing to be treated by their physician but have confidence in the trainer and will contact him in preference to medical men. This is a strong statement but it is very true.

"Athletes, as a rule, would rather be treated by their trainer than their family physician. They feel that the trainer understands the treatment of muscle injuries and sprains far better than their physician. When one considers the training the physician receives in the diagnoses of such injuries the reason is easy to understand. The medical student receives little specific information on these injuries; people seldom go to a hospital with muscle injuries or sprained ankles; therefore, his hospital training adds little to his knowledge. When one reviews the medical books on the treatment of these injuries, the method, in the opinion of the writer, is far less efficient than that practiced by the majority of laymen who have had experience in treating athletic injuries."[2]

Trainers are neither miracle men nor supermen nor do they profess to be. They are, however, an asset to any athletic organization. Professional, college, Olympic, preparatory school, and a very few high school athletic groups realize this when hiring trainers for their teams.

The duties of the trainer are many and diversified. His main responsibility is the physical welfare of the athlete before, during, and after athletic competition. It is his business

[2]Frank, S. L., Deaver, G. G., Eastwood, F. R., Safety in Athletics: Philadelphia, W. B. Saunders Co., 1939. p. 220.

(Continued on page 49)

Athletic Trainer's Code

T-ell the team physician promptly about all cases of injury and illness.

R-ender first aid when the physician is not immediately available and then contact him or, if serious, call the hospital.

A-rrange for medical coverage before the game when playing abroad without the team physician.

I-nstitute the therapy the team physician prescribes but if you feel something else would be better, discuss it with him.

N-ever overdo when giving first aid as it may confuse and complicate the picture.

E-xcusing players from practice for medical reasons should be the function of the team physician, either directly, or indirectly through a previous arrangement with the trainer.

R-emember the medical training staff is a part of the general coaching staff and must give full co-operation for the welfare of the total job.

C-ultivate a friendly and courteous but firm and business-like attitude in dealing with athletes.

O-verall cleanliness of person and quarters is paramount.

D-iscourage any attempt of a player who is trying to gain sympathy over some pet "Gripe" he has carried from the field.

E-ncourage injured men to see the physician daily or as often as you feel they should, and if they do not comply, refuse to treat them.

Drawn by the Athletic and Medical Sec., Princeton University.

The ATHLETIC JOURNAL

Vol. XXXIV April, 1954 No. 8

Published by

THE ATHLETIC JOURNAL PUBLISHING CO.
6858 Glenwood Avenue
Chicago 26, Illinois

MAJOR JOHN L. GRIFFITH *Founder*
JOHN L. GRIFFITH *Publisher*

School Athletics

IN February the Educational Policies Commission of N.E.A. and the American Association of School Administrators presented its lengthy report on "School Athletics." This month we should like to devote our editorial to a discussion of some of the highlights in the 108-page report.

In the first place we agree with about 80 per cent of the views expressed. We probably would agree more completely if we were to toss practicality out of the window, for in theory the report is quite sound.

The Commission must realize that some of the views in the report are Utopian. As an illustration, let us quote the following from page 66 of the report. "The Educational Policies Commission believes that the complete costs of the athletic program should be paid out of general funds. If this were done, many of the problems that plague interscholastic athletics would disappear. Although there are practical difficulties to be faced in many communities, school and community leaders should make every effort to finance all school athletics out of general school funds at the earliest possible date." However, seven pages earlier the report stated: "This emphasis means that interscholastic athletic activities, including team practice and student-body promotional efforts such as ticket sales and pep meetings, as well as games, should be so scheduled that they do not disrupt the school day."

In one instance the Commission urges that athletics be supported out of general funds and in the next instance recognizes the practical aspect that ticket sales are necessary.

Quite frankly, we have long stated that if athletics is to be considered a part of education then it should be supported out of educational funds. However, a considerable number of leaders in the field of physical education are strongly opposed to any such idea.

When there is a greater unanimity of thought among physical educators as to the place of interscholastic athletics in education then that is the time to talk about using general educational funds for its support. Until that time we will string along with the necessity of collecting gate receipts.

The report makes one of the strongest defenses for interscholastic athletics which we have seen. In the first place the term "athletics for all" takes on new meaning. Many physical educators have used the well-worn phrase in such a way as to give the impression that interscholastic athletics is the antithesis of "athletics for all." The Commission's report says: "In athletics as in other areas of the curriculum, the school should offer some activities designed to serve the common needs of all pupils and other activities appealing to a variety of needs and interests. Thus the required classes in physical education serve the common needs of all. The voluntary intramural (and in some cases, extramural) program provides options suited to the diverse interests of the many. And the voluntary interscholastic program gives special opportunities to develop special talents . . . Athletic opportunities, in short, should be provided for each — and for all."

In other words, when a school has an interscholastic athletic program it is not detracting from an "athletics for all" program, but if a school does not have an interscholastic program then the program cannot be construed as providing athletic opportunities for each and for all.

The report implies that the control of interscholastic athletics should rest with a politically dominated division of the state government. Here again, we have the somewhat Utopian idea that government is perfect. Practically speaking, such is not the case, as H. V. Porter so ably pointed out in his address before the American Association of School Administrators. In this address he cited numerous examples of politicians attempting to operate school athletic programs. In one state an athletic controversy was thrown into the state legislature and the voting was along party lines.

This is rather a surprising recommendation for the Commission to make because the growing feeling among educational leaders has been if education is to remain free it must be removed as far as possible from the whims of politicians.

The point most widely quoted in the daily press dealt with the abolishment of post-season tournaments or games in order to determine champions. The Commission missed one entirely, in calling

(Continued on page 63)

USE THE SUPPORTERS WORN BY CHAMPIONS

Many coaches are discovering the outstanding advantages of Johnson & Johnson FAULTLESS Supporters for their teams.

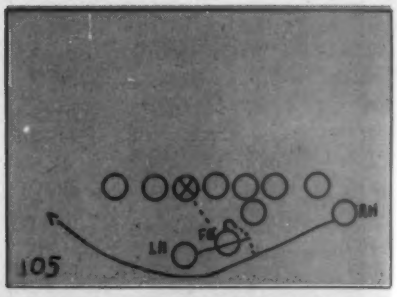
1. They're comfortable: The soft mercerized cotton waistband and leg straps encase flat bands of live rubber. Straps won't curl.

2. They're economical: FAULTLESS Supporters pay out in extra wear. They can be washed hundreds of times without damage or loss of elasticity.

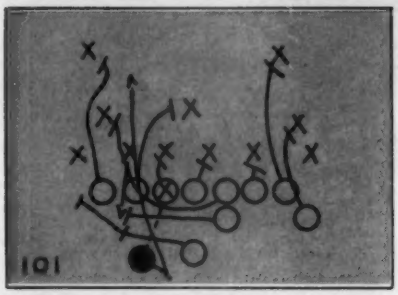
3. They're being used and endorsed by the World's Champion New York Yankees for the seventh straight season. What a testimonial!

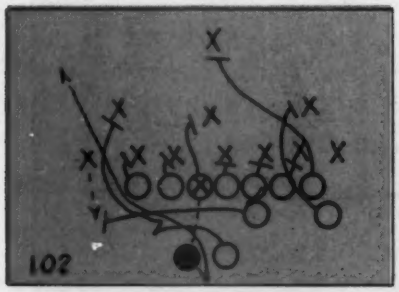
Examine the complete line of Johnson & Johnson Supporters. There's a type for every team and sport.

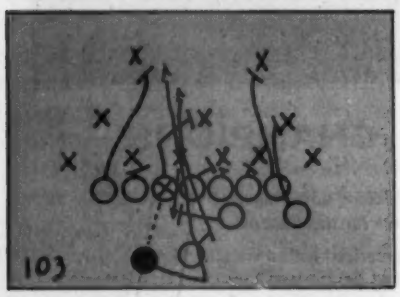
Johnson & Johnson

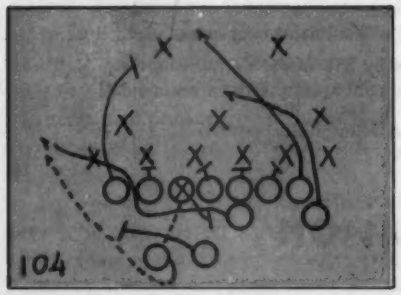


High School Football Offense









A Continuation From the March Issue

LAST month we presented 100 plays run from the T formation or its variations. This month we plan to conclude our annual review of high school offense and will start with the next major system, the single wing.

Diagram 101 shows the first of four sequence plays sent in from Minnesota. The tailback receives the pass from center and fakes a pass. The fullback crosses over, fakes a block at the defensive tackle to help set the trap, and continues on to block the end. The blocking back traps the defensive right tackle, while the pulling guard leads the play, driving for the outside linebacker. The short-side tackle blocks the middle linebacker. The ends go deep for the defensive halfbacks.

The play shown in Diagram 102 is a counter to the previous play and is run most effectively against a seven-man line or an undershifted six. The defensive end is boxed out by the blocking back. The fullback fakes setting up for pass protection and then goes for the outside linebacker. The center works on the middle linebacker, while the end drives the tackle in. Against a defensive line with six-man spacing, the pull-out guard would lead the play through the hole.

The third sequence play, shown in Diagram 103, is a trap on the defensive right guard. The center goes for the middle linebacker; the offensive guards double team on the defensive left guard. The fullback fakes pass protection and then leads the interference through the hole after the blocking back crosses and traps the guard.

Diagram 104 shows a pass play run as a counter play to the above three running plays. The No. 1 receiver is the blocking back in the flank, although the button-hooking end and the wingback cutting over center are quite often open.

The play which is shown in Diagram 105 came to us from California and is a reverse play. The fullback receives the pass from center, spins and hands off to the left halfback who continues a step or so, and in turn hands off to the right halfback swinging deep and wide.

Diagram 106 shows a pass play off of a fake end run. The pass can go to any one of four receivers, although the blocking back is the No. 1 receiver because the end will draw the linebacker long enough to permit the blocking back to step through and veer to the outside.

A school in the nation's capital used the pass play which is shown in Diagram 107 very effectively. Two backs are set on the flank, with the No. 1 receiver being the wide flanker, cutting in behind the linebacker.

Diagram 108, from Wyoming, shows a screen pass to the weak side. The weak-side tackle, end, and the shifted guard move to the left to set the screen. The pass goes to the blocking back.

The play shown in Diagram 109 is

How to add

"Esprit De Corps"

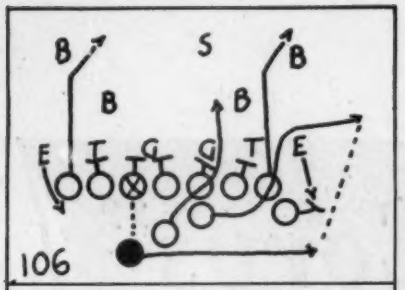
to your

GOLF and TENNIS teams

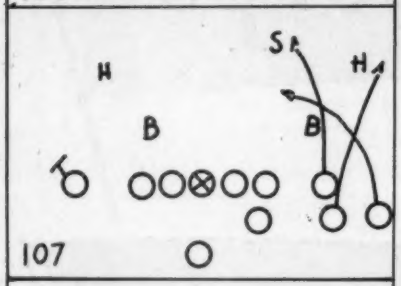
...Equip them with

MacGregor

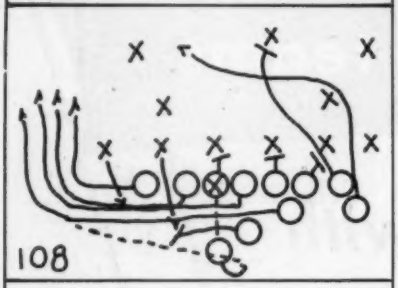
When you equip your golf and tennis teams with MacGregor, you give them everything they could ever hope to find in golf clubs and balls . . . or tennis rackets and balls. More and more school and college teams are MacGregor equipped today for an important reason . . . it's equipment of champions and it helps build "Esprit De Corps." Every athlete becomes a better team player when he plays with the best tools of the game —MacGregor.



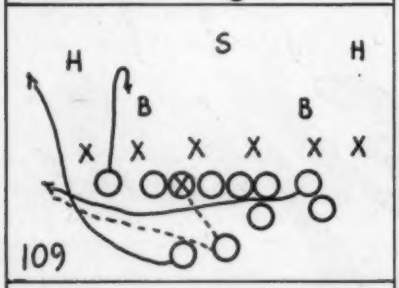
106



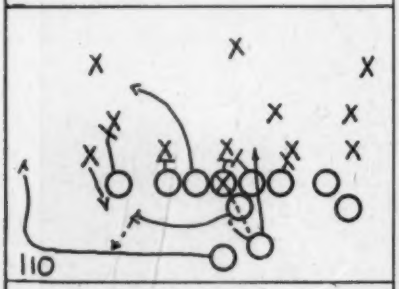
107



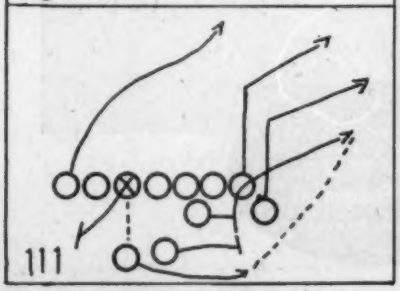
108



109



110


111

a flat pass to the right end coming around behind the scrimmage line.

Diagram 110 shows a play off of the Tennessee single wing. The ball is passed to the fullback who drives into the line, but hands the ball to the quarterback who pivots and moves down the line to the left. The quarterback runs the option play in the same manner as the split T quarterback, depending on the play of the defensive end.

The play shown in Diagram 111, from Nevada, is similar to the pass play shown in Diagram 106. In the Nevada play the blocking back checks the end and then slides out into the right flat to take the pass. The wingback and both ends go downfield.

The reverse pass, shown in Diagram 112, was used very successfully by a Colorado high school. The fullback spins and hands to the wingback, running a deep reverse pattern. The halfback stops and throws to the end, cutting sharply to the sideline.

In the March issue, Diagram 16, we showed a pass lateral play run from the T formation. The lateral went to the left tackle. Diagram 113 shows the same play run from the single wing. Interestingly enough, the first play was sent from Georgia and the second play was received from a coach in Washington state.

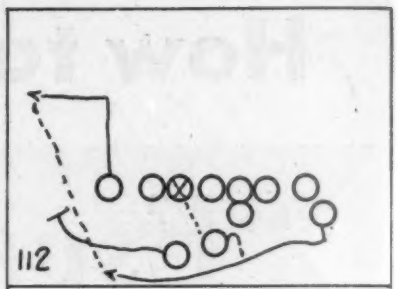
There is a certain amount of similarity between the plays shown in Diagrams 107 and 114. In both cases the man-out formation or double flanker setup is used. In the latter diagram the line is unbalanced and the pass goes to the shallow wingback.

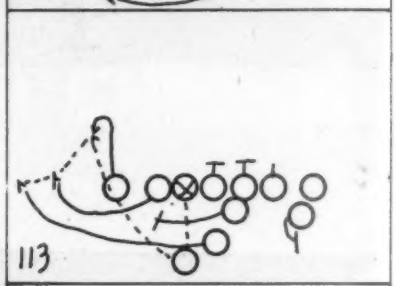
The state champions in Nevada used the play shown in Diagram 115. The left halfback was an outstanding running threat. The snap went to the blocking back who faked to the left halfback and then continued on back for an end run. The pass is thrown to the left halfback.

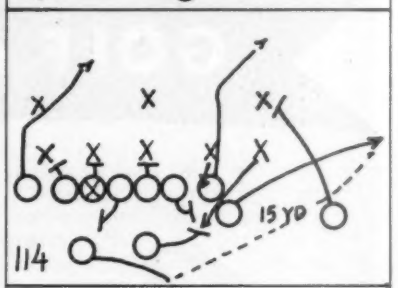
Diagram 116 shows a play similar to the one shown in Diagram 109 except in the latter case the right end runs his pattern in defensive territory instead of behind his own line.

The play shown in Diagram 117 is run from a formation which has the ends widely split. The wingback is split ten yards beyond the end and the blocking back lines up behind his right end. The end and blocking back start to the right, paralleling the line of scrimmage; the back takes three steps and cuts back. The defensive line is allowed to sift through and the tailback throws a short jump pass to the blocking back.

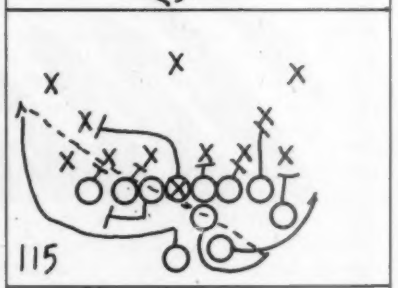
The play shown in Diagram 118 is also run from a wide formation


112

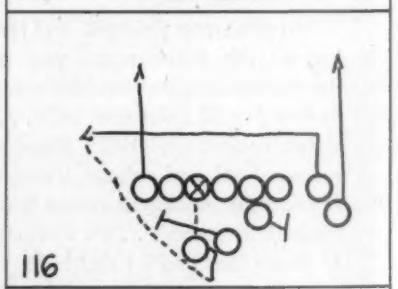

113

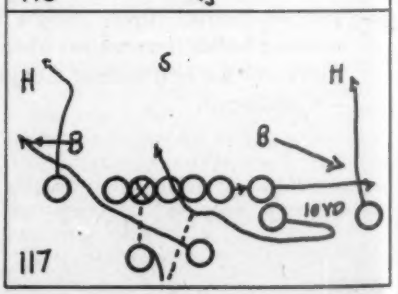


114



115


116



117

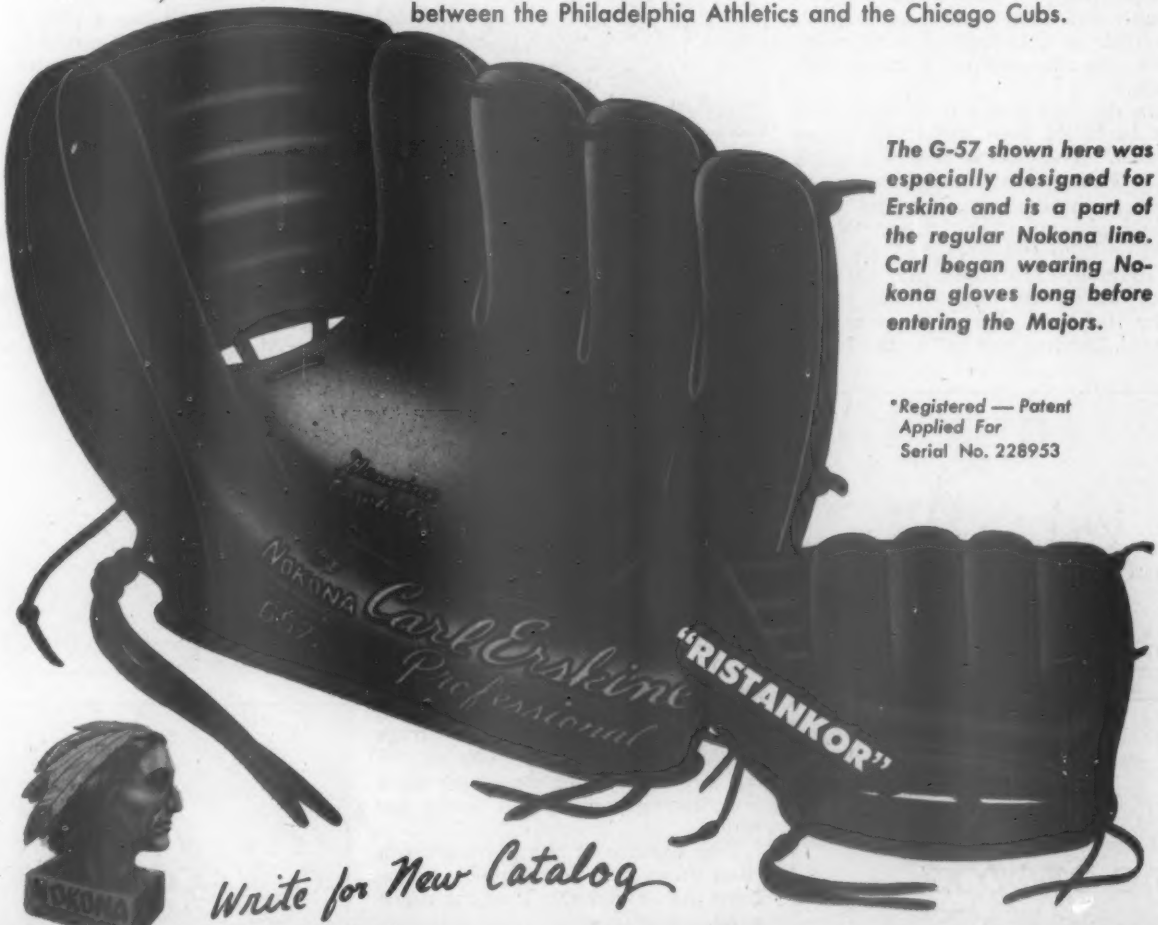
Carl Erskine

SET NEW STRIKEOUT RECORD WEARING HIS NOKONA G-57 GLOVE

with the *Ristankor** feature

CARL ERSKINE
by Ted Lowitzer

Erskine's new World Series strikeout record was made in the third game of the 1953 Series when he struck out 14 Yankee batters. This stellar pitching performance beat Howard Ehmke's 24-year-old record of 13 strikeouts established in the 1929 World Series between the Philadelphia Athletics and the Chicago Cubs.

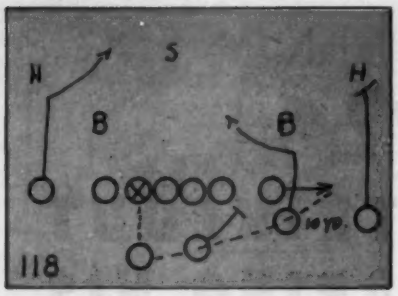


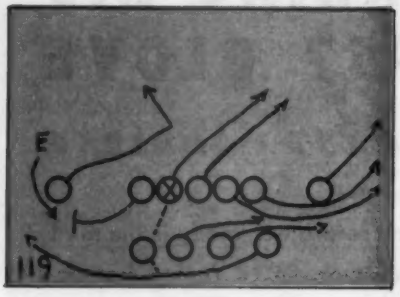
The G-57 shown here was especially designed for Erskine and is a part of the regular Nokona line. Carl began wearing Nokona gloves long before entering the Majors.

**Registered — Patent Applied For Serial No. 228953*

Write for New Catalog

NOCONA LEATHER GOODS COMPANY • NOCONA, TEXAS

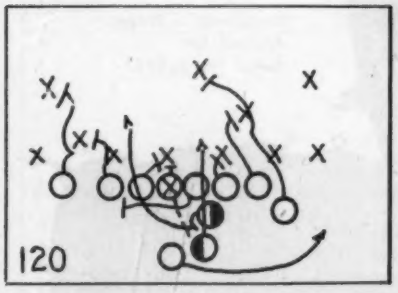


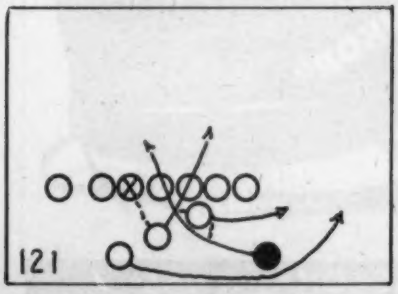


and is similar to the plays shown in Diagrams 107 and 114. In this particular play the end holds for two counts and then runs into the flat, parallel to the line of scrimmage, where he takes the pass from the tailback.

In the play shown in Diagram 119 all backfield men are lined up as shown. The play is run as a quick play with the ball being snapped as soon as the line sets. The reversing wingback can either throw to the end or keep and go wide.

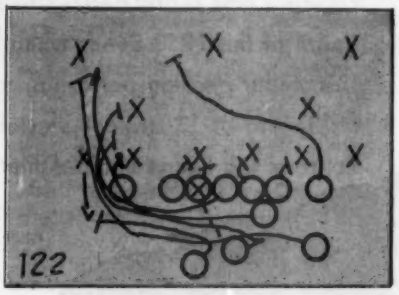
Diagram 120 shows a play which is run off of the buck lateral series. The fullback drives in over the guard, handing the ball to the blocking back. The blocking back follows the strong-side guard to the off-side and goes inside the tackle.

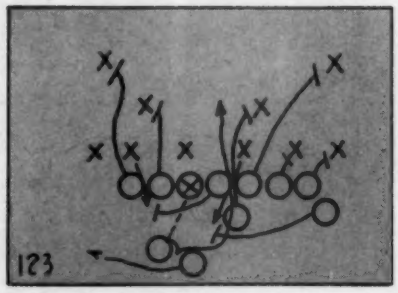




The play shown in Diagram 121 is another buck lateral play. The fullback drives forward, handing off to the blocking back, who in turn hands off to the wingback. The ball-carrier goes over the middle instead of following the usual off-tackle or around end pattern.

One of the major South Dakota high schools used the weak-side run which is shown in Diagram 122. The backs all take a step to the right, faking a strong-side run to draw the defense in. If the weak-side defensive tackle and linebacker can be drawn in, the play goes for a long gain. The ball-carrier delays long enough to let the other backs get in





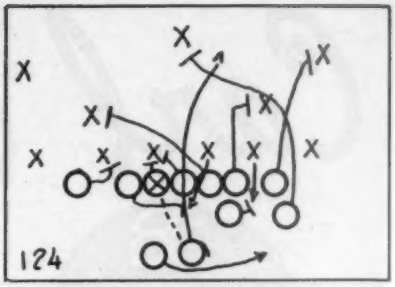
position as interference.

Diagram 123 shows a trap on the defensive tackle. The wingback traps the defensive guard. The blocking back leads the play and is assigned to the linebacker.

The play which is shown in Diagram 124 is a trap on the defensive guard. The center and overshifted guard double team the defensive right guard; the left tackle pulls and traps the defensive left guard. The left end can help to execute the tough block assigned to him by not being too wide.

The balance of the plays are run from unusual or less popular formations than either the T or the single wing.

The play shown in Diagram 125 is run from a modified spread formation and is in a way similar to the plays shown in Diagrams 107, 114, and 118.



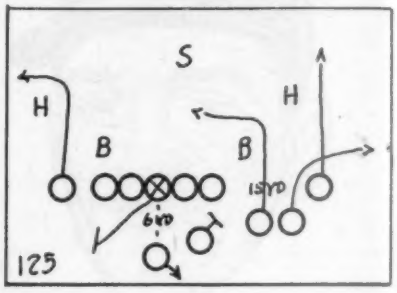
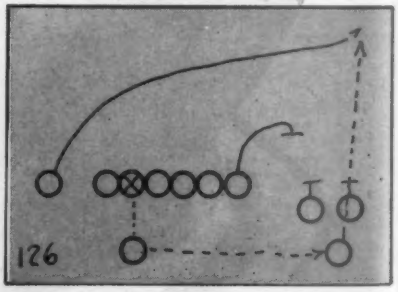
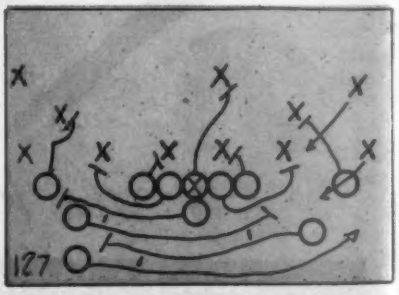


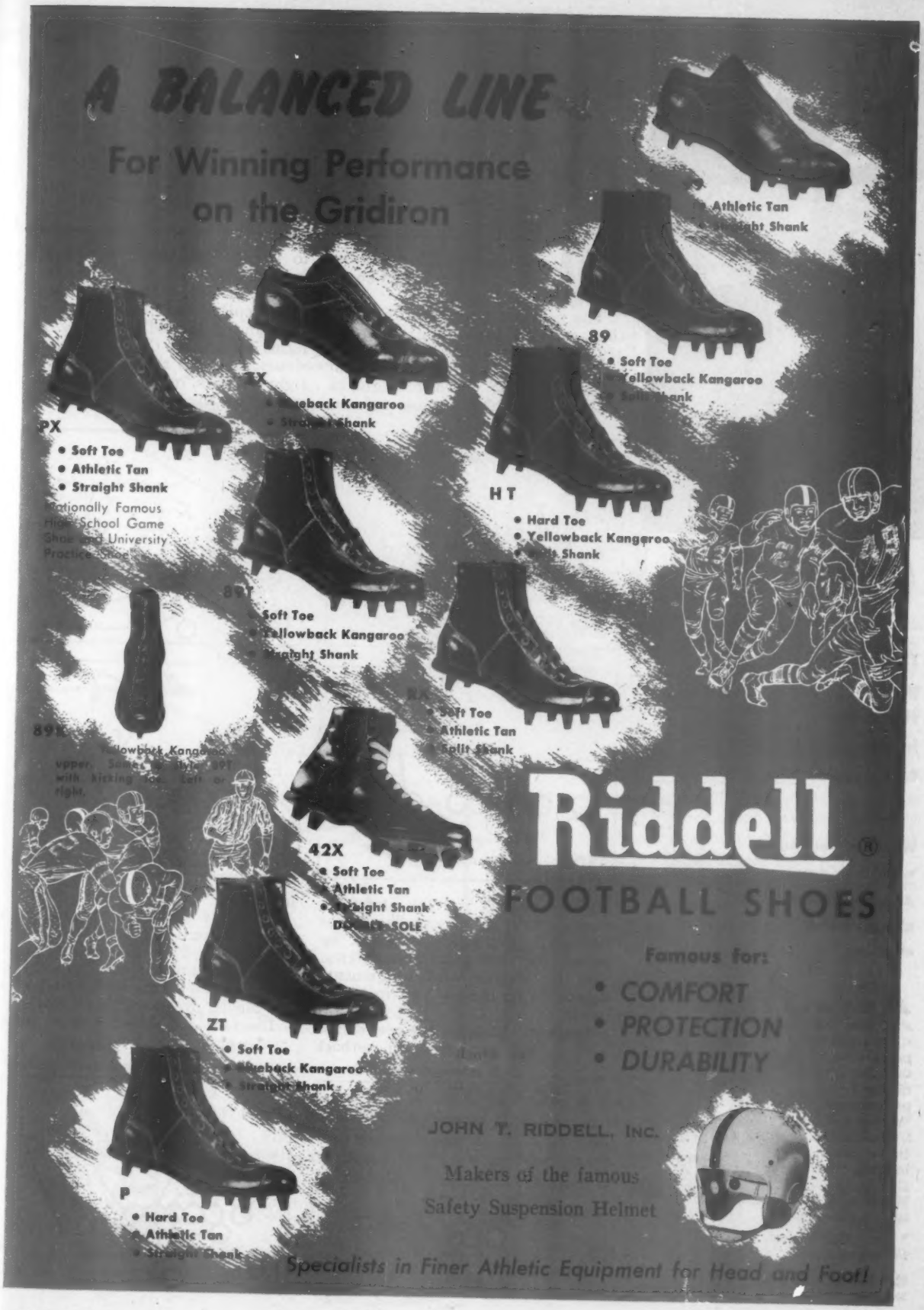
Diagram 126 shows a play which is run from an unusual spread formation. The left halfback throws a long lateral to the second back who in turn throws deep to the left end.

Diagram 127 shows a triple reverse run from an orthodox spread formation. The coach who sent in the play stated: "This is a play that either goes all the way or is a miserable flop. They went all the way against us last fall using the play."

The play shown in Diagram 128 is a tackle eligible pass play run from a spread formation. The end shifts






A BALANCED LINE
For Winning Performance
on the Gridiron
PX
• Soft Toe
• Athletic Tan
• Straight Shank
Nationally Famous
High School Game
Shoe and University
Practice Shoe
89
• Soft Toe
• Yellowback Kangaroo
HT
• Hard Toe
• Yellowback Kangaroo
89T
• Soft Toe
• Yellowback Kangaroo
42X
• Soft Toe
• Athletic Tan
ZT
• Soft Toe
P
• Hard Toe
• Athletic Tan
Riddell
FOOTBALL SHOES
Famous for:
• COMFORT
• PROTECTION
• DURABILITY
JOHN T. RIDDELL, INC.
Makers of the famous
Safety Suspension Helmet
Specialists in Finer Athletic Equipment for Head and Foot!

The sizes go by the color in the toe

Sock Size	Thread Color
9	Black
10	Green
11	Red
12	Blue
13	Orange

Whatever you want—wear Wigwams.

All materials—all weights—all prices.

ALL WOOL

PART WOOL
(Also available with colored tops)

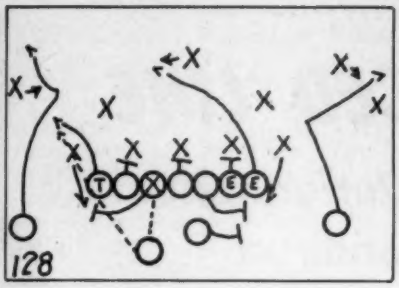
Soft, springy, absorbent Wigwams, nylon reinforced, provide the all-important foot comfort needed for top performance. And—Wigwams are STA-SIZED* to retain that comfort . . . no binding, bunching or chafing. Order Wigwams . . . at leading dealers everywhere.

CUSHION FOOT

ALL NYLON

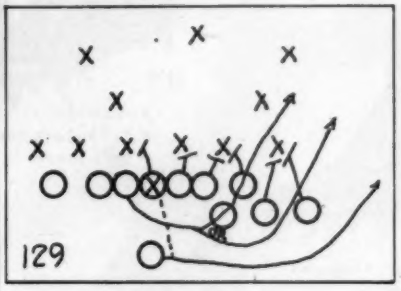
* *Won't shrink below the knitted size.*

Hand Knit Hosiery Co.
Sheboygan, Wisconsin



to the strong side; the left tackle delays two counts, then button-hooks for a short quick pass.

The next two plays, from Connecticut, employ a triple wing. Diagram 129 shows a sweep with the left guard pulling to lead the interference downfield. The left guard may run a course inside end or outside end, depending on the way the linebacker plays. If the guard can handle the linebacker, the inside wingback becomes the downfield interference. The two players switch assignments, depending on the way the linebacker reacts.



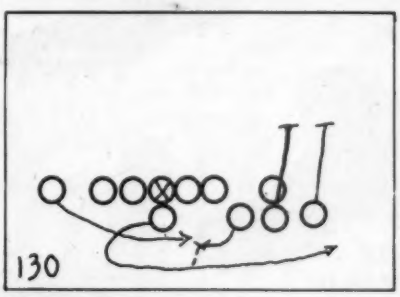
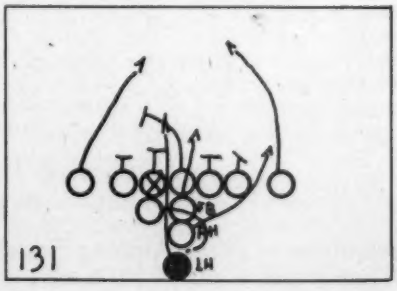
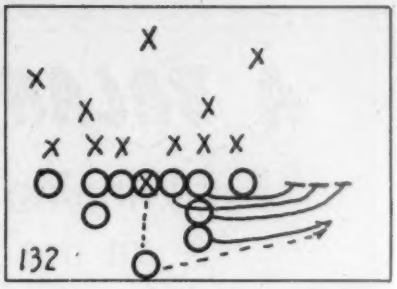


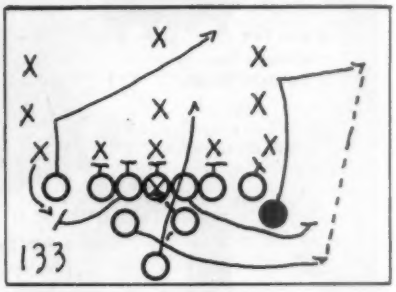
Diagram 130 shows a triple reverse, with the ball going from quarterback

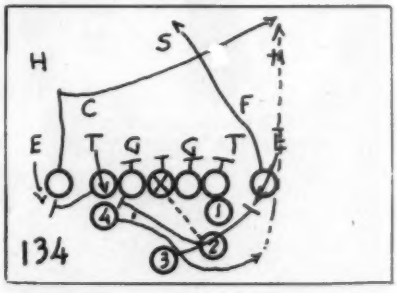




to left end to inside wingback to quarterback.

Diagram 131, sent in from Michigan, depicts an L formation play from an unbalanced line. The quarterback fakes to the fullback, continues on to his right, faking to the right halfback, makes a reverse pivot, and whips the ball to the left halfback.

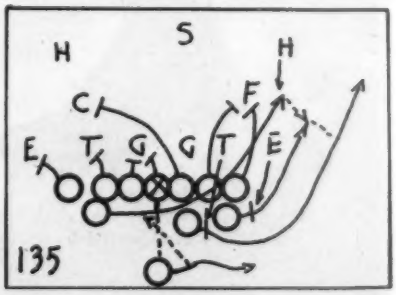




The play shown in Diagram 132 is a screen pass run from a long punt formation. The right guard, right tackle, and upback move down and set the screen for the second back who has moved over about six yards.

Diagram 133 shows a short punt

(Continued on page 60)



Disaster strikes your team! In one split second, months of hard work are shot to pieces... and you've got to have those points to win that next meet...

The Vibra-Bath Story

Vibra-Bath to the rescue! Attack strain, charley-horses, bruises with Vibra-Bath's more specific hydromassage. Cut "time-out" to a minimum ... get that boy back in the running!

Look at that lad soar ... up ... up ... up ... and over! Another meet in the bag ... another triumph for your school ... another triumph for Vibra-Bath, too!

No doubt about it ... Vibra-Bath does a wonderful job ... especially when used as part of your regular therapy routine for injuries such as bad bruises, strains, sprains and pulled muscles. Each day more coaches are discovering that Vibra-Bath's *more concise method* of application cuts healing-time ... the Vibra-Plate does this trick! You can easily place it close to any body-area affected by accident. Almost instant relief from pain ... faster healing time ... easy portability (carry it to out-of-town games) ... that's Vibra-Bath ... a "must" for modern trainers and coaches!

The BIRTCHER CORPORATION
4371 Valley Boulevard, Los Angeles 32, California

Please send me your new brochure on the Vibra-Bath and the HANDBOOK ON HYDROMASSAGE.

Institution_____

By_____ Title_____

Address_____

_____

DEPT. AJ 4-54

OFFENSIVE CHART

Name	AB	Hits	Walks	K	1b	2b	3b	HR	SB	Sac	Runs	RBI
Smith 1b	11111	111	111	1	11		1		1		1	11
	11111											
	111											
Jones 2b	11111	1111	11111		111	1			1111	1	11111	1
	11111											
	11111											
	111											

Make the Most of the Games

By CHARLES F. STUBBLEFIELD
Baseball Coach, N. R. Crozier Technical High School, Dallas, Texas

MANY coaches gain an advantage in a baseball campaign by having their teams ready early. By working very hard during the early days of the season they easily outclass the late starters. An early start is important to a successful season but maintaining the advantage gained through advance preparation and hard work is even more important.

Once the season starts and practice games are under way, one of the best methods to prepare for a game is by referring to the mistakes and good plays made in the previous game. Many coaches like to dispose of games with, "Well, that one's behind us. Forget it. Let's get ready for the next one." Any coach who speaks in this manner is guilty of overlooking one of the most valuable aids in preparing his team for the next game.

In order to use the games already played as aids in getting ready for those to come the coach will have to keep records, not just offensive records, but defensive records as well. The box score, which is kept by the manager, will be very helpful but even more helpful will be the coach's notebook in which he makes notes regarding base-running mistakes, failures to back up throws, missed signals, muffed plays, poor execution of bunts and steals, swings at bad pitches, failures to throw to the cut-off man, and countless other things.

It is a good policy to have a squad meeting in the dressing room immediately following each game. Whether it be the first practice game or the last game of the season for the championship there are still lessons to be learned from it. At this meeting the coach should review the important parts of the game quickly and try to point out just where and why it was won or lost. He should then review the work of the pitchers and catchers, mentioning the number of hits allowed, the walks issued, wild pitches, passed balls, and stolen bases. Any questions that arise as a result of this discussion should be answered as completely as possible. It is at this point in the discussion that the danger of the base on balls can be stressed most forcibly to the pitchers for they can be told how many men they walked and how many runs scored as a result of those walks.

The infield play should be covered next. Any questionable plays can be discussed and a blackboard solution worked out. It is here that failures to cover bases, back up throws, take the cut-off position, and execute the defensive plays are brought out. Many mistakes will be noticed by the watchful coach. Each of these should be mentioned and corrected before going to the next. In this way the team can be given a picture of the plays where it showed defensive weaknesses and steps can be taken to correct them.

Mistakes made by the defensive outfield can be discussed inning by inning in the same manner as those made by the infield. When the game has been reviewed in this manner for the defense the coach may wish to outline some of the defensive drills that must be perfected before the next game. Many times the players themselves will suggest the proper drills. This simple planning gives the members of the team an idea of what is needed to improve the team's caliber of play. It also answers, before it arises, the question "Why?" when defensive drills are practiced.

Physical errors should not be dwelled upon. By physical errors we mean bobbles of ground balls, dropped fly balls, and muffed third strikes. It is true such errors are costly to the team, but if the player were in the right position, and if he used the correct technique in fielding the ball, then his error was not a thing that he or the coach could control and there is no point in adding to his mental anguish by stressing a mistake for which there is no explanation. The mistakes which must be emphasized in this session are the mental ones of position, technique, and execution. They are the costly errors which can be corrected by thought and drill. The other type of error must be regarded as an ever-present hazard of the game. A player who makes such an error is certainly doing his best to make the play correctly. Errors in baseball, like fumbles in football, can never be coached into extinction. They are reduced as technique is improved but they will always be present to plague the coach and his players.

After he has covered the defensive game thoroughly and taken steps to strengthen that department the coach will want to discuss the offensive efforts and point out how these efforts might have been improved.

In reviewing the team's offensive

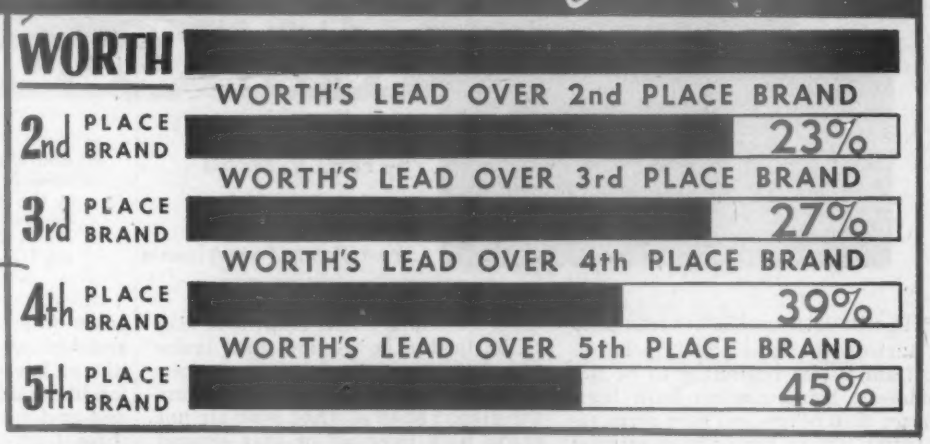
(Continued on page 40)

Look at the *Facts

IN BASEBALL PERFORMANCE!

RESILIENCY RETENTION • *after 200 hits*

* BASED ON LOSS OF DISTANCE AFTER 200 HITS. TEST CONDUCTED BY TIM MURCHISON, MAJOR LEAGUE SCOUT.



ACTUAL UNRETOUCHED PHOTOGRAPH

3rd PLACE BRAND | 2nd PLACE BRAND | WORTH | 4th PLACE BRAND | 5th PLACE BRAND

Worth's continued use of 98% virgin wool yarn is the proven factor in reducing to the minimum "Yarn Fatigue" that steals resiliency and shortens the playing life of a baseball. The best ball can be made from only the best materials.

LANNOM MANUFACTURING COMPANY
TULLAHOMA, TENN. • GRINNELL, IOWA

Worth ..ANOTHER NAME FOR VALUE

Reduce Injuries With Good Turf

By FRED V. GRAU

Agronomist,

West Point, Pennsylvania

Above, members on the first Eastern Athletic Field Tour studying the turf at University of Pennsylvania. Inset, the turf at Michie Stadium, West Point, and below method of planting U-3 Bermudagrass.

THE true relationship between poor turf on the field and injuries on the team is just beginning to be understood. Some coaches have been smarter than others and have demanded better turf to keep player injuries to a minimum. Others have insisted on more water to *keep the ground soft* in a well-meant but fruitless attempt to reduce injuries. Some coaches just do not seem to care. But mothers and fathers *do* care and so do the boys.

In April 1939, when I was Extension Agronomist at the Pennsylvania State College, (now the Pennsylvania State University) the editors of *Athletic Journal* asked me to do a piece on "How We Maintain Good Turf on Athletic Fields in Pennsylvania." We have just reviewed that article and it is surprising how much of what we said then is still good today. But many of those in charge of athletic fields and sports grounds do not have access to the information that could be made available to them. At that time, we talked about hard, bare clay fields, broken bones, and stone bruises. We also talked about a deep ground cover of turf that will protect the players from injuries. We are not going back over all of that ground now. We are going to bring the readers up to date and tell them about the more modern methods of producing good turf. This is one of the most effective means of keeping the players in the game.

In April 1940, the editors of *Athletic Journal* asked us to do another piece, this time on "Chemical Weed Control as an Aid in Renovating Turf on Athletic Fields." Our opening sentence in that article was: "Athletes want a deep, firm resilient cushion of turf on which to fall." In February 1954, Head Coach, Rip Engle, of the Pennsylvania State University said: "What we want is a spongy feeling, something with resilience, a turf that has 'give' to it." He further said that football is the only game where the players are legally knocked to the ground. He would like to have his players fall on cushion-like turf, not hit the hard clay and end up with injuries that keep them from winning the game.

In 1940 we talked about adequate practice areas and about building a sod nursery so that damages to the field could be quickly and effectively repaired by resodding. And we emphasized the importance of employing a capable groundskeeper experienced in the maintenance of turf. We mentioned the necessity for providing him with adequate equipment which is indispensable to the maintenance of turf. Finally, we emphasized that the whole thing should be backed up with an adequate budget.

Now, fifteen years and thousands of ruined knees, pulled tendons, and twisted ankles later, we have been asked to do another piece for *Athletic Journal.* It is a pleasure because now we can bring to the readers of

Athletic Journal information about new grasses and new devices for providing the right kind of turf. We mean the kind of turf that pleases the players, the coaches, and also the spectators. A few things have been learned in the past fifteen years. Now there are new types of machinery. We have new improved grasses. There are new techniques to help us do the job at hand. We hope that our message will be read by coaches, players, and spectators alike, and that the net result will be a concerted demand for the best turf that can be grown under the circumstances.

Specifications for Athletic Field Turf

Before we go any farther, let us decide on what kind of turf we should be growing to meet the specifications. Granted, if we have any grass at all, it is better than just mud, dust, and hard clay. But, we ought to shoot for near perfection. We should have a mental picture of "nothing but the best" because, with modern techniques and our improved knowledge, in most cases it is possible to produce the kind of turf that will very nearly satisfy everybody.

Our definition of the kind of turf that the coach would like to have for his players is one that is firm for good footing. It should be slightly yielding so that the grass will *give* when it comes in contact with human tissues. And it should be resilient to take the shock of falls so that the player will not be injured by physical contact with the earth. Now, let us see what Rip Engle of Penn State has to say about it. He wants a cushion-like turf so the players will have something to fall on besides hard ground. He wants this kind of turf on the practice field also. He does not wish to have his players thrown out of the game on Saturday because of shinsplints and other injuries developed on the hard clay of the ordinary practice field. In a word, he would like to have the same kind of turf on the practice field as on the regular playing field.

Further, Rip told us in our interview that some turf is too soft and the grass gives way too easily. In some cases, when there is a bit of dampness, the turf is like hot butter and is as slippery as an oily gymnasium floor. When this condition is present there are few injuries, but very little ground can be gained. It is quite essential to have a turf that will give on a turn because in changing direction quickly, something is going to give — either the turf or an ankle or a knee. From the standpoint of winning games, it had better be

U-3 Bermudagrass

Makes a Safe, Tough, Drought Resistant Turf for Athletic Fields

Developed by the U. S. Golf Association, Green Section, under the supervision of Dr. Fred V. Grau, former Director, and the U. S. Department of Agriculture. Released only two years ago after thorough testing. It is different from and not to be confused with common bermuda.

Now planted on Navy Field, Annapolis, and other installations . . . highly recommended by officials where it is used.

U-3 Bermudagrass has these proven and highly desirable characteristics for the athletic field

- **Makes a dense, solid mat of turf, hard to damage, quick to recover from injury.**
- **is a SAFE TURF for players.**
- **highly resistant to drought disease and insects.**
- **can be planted in present turf, will take over completely, crowding out old grass.**
- **grows best in hottest weather, once started requires little or no water.**

The initial cost of U-3 Bermudagrass is modest, the upkeep expense is low. It will give you a solid turf when other grasses wither and burn out. Many users of U-3 Bermudagrass report that it was the only grass that stood up under last year's drought.

U-3 Bermudagrass is set out as sprigs or small plugs of sod, that spread to cover. If planted in May or June will cover solidly by September. Grows well in that part of the country south of a line between Philadelphia, Columbus, Ohio; Denver, Salt Lake City and San Francisco.

We suggest a trial on your own athletic field, or where the wear is heaviest. A trial package of enough grass to plant 288 square feet on 12-inch centers, $9.80 F. O. B. Vienna, Virginia. Quantity prices on request. Simple planting instructions accompany each order. Shipment will be made in May.

LAWN GRASS DEVELOPMENT CO.

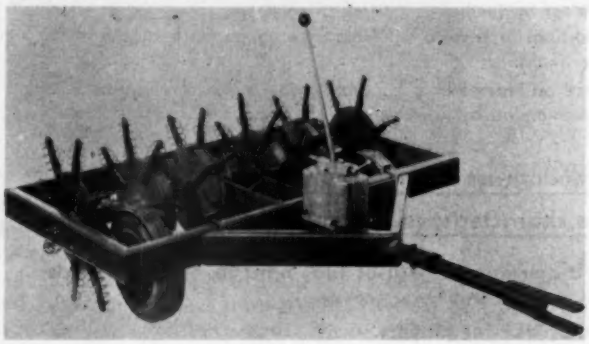
Dept. J4 VIENNA, VIRGINIA

Use the AERIFIER* for greener, safer fields

Spring is a good time to do something about poor turf on athletic fields. Use the Aerifier and then fertilize, to develop extensive root growth. Living roots and thick top growth provide firm footing for action plus resilience to cushion falls. You can have good turf on the practice field as well as the main one. So begin your improvement program now.

*Reg. U.S. Pat. Off. Pat. No. 2,580,236

West Point Products Corp. West Point, Pa.



New Model "U" AERIFIER*

feature for feature

LEAVITT'S THE BLEACHER

• Safe • Comfortable • Durable

Elevated Portable Steel Grandstand is designed to give maximum safety with all the advantages of an expensive stadium — at an economical cost.

Front row spectators are comfortably seated at an eye-level of approximately 7′ above the ground. They can see over the heads of passers-by, which eliminates most distractions.

One of the most rigid, well-braced stands, LEAVITT'S durable Portable Steel Grandstand has been scientifically designed for portability, fast set-up and take-down. Its broad 4-foot wide front walkway gives ample access to convenient, gradually sloping downramps.

For all seating requirements, remember LEAVITT for:

KNOCKDOWN PORTABLE WOOD BLEACHERS
PORTABLE STEEL GRANDSTANDS
ADD-A-SEAT PERMANENT STEEL STADIUMS
TELESCOPING BLEACHER—widely acclaimed as the best of its type.

This portable STEEL GRANDSTAND will seat your outdoor crowds safely and comfortably for many years.

Complete information available on request.

LEAVITT bleacher Co.

URBANA, ILLINOIS

the turf that gives. Football is a game of angles. Everything is a change of direction. The good player is the one who has the ability to change direction quickly and good footing is essential to that ability. A close-cut turf is a faster turf and is, therefore, more desirable.

Rip went on to describe to us the part he feels aerification plays in helping to create that spongy effect on the field. In his words, it creates a condition so that "the ground has somewhere to go when you step on it or change direction." He went on to say that if you scoop out a bunch of cavities in the soil and then the player makes a sharp turn, the soil under his feet has some place to go. It *gives*. This is strictly from the players' standpoint. Agronomists have known for years the other benefits derived from soil cultivation — water penetration, fertilizer penetration, increased root growth, and better drought-resistance. But, on playing fields, the most important benefit is the effect the cultivating machines have in creating a spongy, resilient condition.

As we talked, we came to the subject of color. Rip feels that everybody appreciates beauty. He said it is something like sitting down to dinner in a nice place as compared with eating at the greasy-spoon on the corner. He told us about the Fordham game at Penn State on November 7, when 26 inches of snow in the mountains made him and his team an hour late getting to the field. The stands were covered with snow and the spectators were covered with snow. The field was like a green emerald in that wintry setting, and his players just loved it. The emotional and psychological effect was tremendous.

Rip remembers the Army-Navy game at the Philadelphia Municipal Stadium, when we collaborated with

(Continued on page 53)

Illustration shows plugging operation.

HOW TO TAPE A SHOULDER SEPARATION

in 4 simple steps used by Duke Wyre, Head Trainer of the University of Maryland

When you tape a shoulder separation, you do the job more easily, more surely, if you use *Bike*—the Trainers Tape made especially for use by athletic trainers.

Bike tapes have a quick sure grab that leaves no unstuck places—the job *stays put*. *Bike* Trainers Tape has the special adhesive that resists the loosening effects of perspiration and keeps irritation down to a minimum. And they're easy to handle. So to do a good job for your boys in preventing and caring for injuries, use the tape the leading Trainers use —*Bike* Trainers Tape.

BIKE® TRAINERS TAPE
Made Especially for Trainers' Use

BIKE Formula 87—highest quality tape obtainable—laboratory tested for ideal protection during drills and actual play.
BIKE Zinc Oxide—highest grade with slightly lighter back cloth, more flexible protection and economy on and off the field.
BIKE General Purpose—quality with low cost, real economy in a lightweight tape for general use.

1. A two-inch tape is applied to the middle of the arm, goes up over the shoulder to a point in the middle of the back. Several strips are then added in the same general direction to reduce the pull on the arm.

2. The felt doughnut placed over the shoulder joint (see Fig. 1), is held in place by running tape over the shoulder. The tape is pulled down hard over it to force the clavicle back into position. See Fig. 2.

3. About 6 lateral strips going from middle of back around arm to the center of the chest, should be added until the whole dressing feels secure. When the taping is complete, use a BIKE Charley Horse Wrap —a heavy elastic bandage—to set the adhesive strapping firmly. Wrap in a continuous figure eight.

4. One- and one-half inch tape is applied directly over the wrap to anchor the Charley Horse Wrap into place. Then fashion a sling from one- and one-half inch tape. This serves to support the boy's arm. See Fig. 4.

Photos are from new color film, "Athletic Injuries—Their Prevention and Care" produced by the Bike Web Company. Available for loan on request.

Send now for your 1954 "Coaches and Trainers Handbook." It's loaded with the latest information and techniques, and illustrated in color. Just drop us a card or letter asking for it.

THE BIKE WEB COMPANY

Dept. AJ-4 309 West Jackson Blvd., Chicago 6, Illinois

FORTY-FIF
RAKE

Friday, April 23
DES MOINES SAYS

Drake University, the Drake Relays Co[mmittee] mittee extend a cordial welcome to [the] athl[etes] of America and the high schools o[f] Iowa [to] ning of the Drake Relays in [D]es Moi[nes]

Iowa and its capital city are [p]roud o[f] of the outstanding athletic [e]vents [we] make every effort to ha[ve] your [visit] and pleasant one.

Welcome—and [a]gain [to] To Des Moines a[nd] the [Drake]

★ ★ ★

Program of

Special Events

100-Yard Dash, 120-Yard [H]igh Hurd[les], dles, Shot Put, Javelin Thr[ow], Broad J[ump], Pole Vault, High Jump, Tw[o]-Mile Run (Open only to colle[ge] and uni[versity]

Open Event

Invitational [O]ne Mile

Univers[ity] Section

440-Yard Relay, 880-Yard [R]elay, On[e] Mile Relay, Four-Mile Rel[ay], Sprint tance Medley Relay, and [O]ne-Yard S[print] Relay.

College Section

440-Yard Relay, 880-Yard [R]elay, On[e] Mile Relay, Sprint Medley [R]elay, an[d] Relay.

High Sc[hool] Sectio[n]

Special Events: 100-Yard [D]ash, 120-[Yard] Mile Run, High Jump, Po[le] Vault, Fo[ur]-cus Throw, Broad Jump, [S]hot Put, Relays: 440-Yard Relay, [8]80-Yard Re[lay], Jay, Two-Mile Relay, ar[d] Sprint Medley (High School Competition [Limited to I]

Bill Easton
Kansas
University Referee

Oliver Jackson
Abilene Christian
College Referee

Two of the nation's stand-out coaches—Bill Easton of Kansas and Oliver Jackson of Abilene Christian—will be referees of the 1954 Drake Relays.

Founder
John L. Griffith

Director
Tom Deckard

FTH ANNUAL

RELA

Saturday, April 24

SAYS "WELCOME!"

ys Committee and the Greater Des Moines Com-
me to e athletes of universities and colleges
ools of owa to attend the forty-fifth run-
ys in s Moines on April 23 and 24.

y are oud of the Drake Relays, one
thletic ents of the world, and will
to he your stay here a happy
ne.

—and gain Welcome—
es a the Drake Relays

★ ★ ★

um of Events

Speci Events
20-Yard h Hurdles, 440-Yard Hur-
elin Thr Broad Jump, Discus Throw,
ump, Tw ile Run.
to colle nd university men.)

Ope vent
ational n Mile Run.

Univer Section
80-Yard lay, One-Mile Relay, Two-
Mile Rel Sprint Medley Relay, Dis-
y, and Yard Shuttle High Hurdle

Colleg ction
80-Yard lay, One-Mile Relay, Two-
Medley lay, and Distance Medley

High Sc Section
0-Yard 120-Yard High Hurdles,
mp, Po ult, Football Throw, Dis-
Jump, hot Put.
Relay, rd Relay, One-Mile Re-
ay, ar t Medley Relay.
petition ed to Iowa High Schools).

We'll Help Make Your Reservations

The Drake Relays Headquarters Committee will be glad to make hotel reservations for you and your team. For further information, write Tom Deckard, Drake University, Des Moines 11, Iowa.

America's premier track performer — Wes Santee, the great Kansas distance ace—will make his third and final Drake Relays appearance this year. Santee has helped K. U. to a wealth of Drake glory the last two years and was chosen outstanding athlete in 1952. Joining him at Drake will be the tops in collegiate track and field athletes from all over the United States.

The Growth of

Interscholastic Sports

INTERSCHOLASTIC sports have increased in popularity during the last sixteen years. Basketball, baseball, track, eleven-man football, softball, and six-man football have all made substantial gains in high schools since 1937.

Figures for the years of 1937 and 1953 were gathered from the same sources; the secretaries of the state high school athletic associations by means of a mail questionnaire. For both years 47 states furnished data for nearly 19,000 high schools.

In 1937 six-man football was a new sport. The first game was played in 1934 at Hebron, Nebraska. By 1937 the game was reported being used as an interscholastic sport in 586 high schools in 28 different states. Three out of every 100 high schools had teams. In 1953 ten out of every 100 schools fielded teams as the total increased to 1818 high schools located in 36 states.

The growth of six-man football occurred largely in the 1935-1940 period. In 1940, 1911 high schools were reported playing the game. In addition to high schools playing interscholastic six-man, hundreds of other six-man teams representing playgrounds, elementary schools, and intramural groups in colleges and high schools are now playing the game. Many of these teams play the touch variety instead of using tackling.

For both years six-man was most popular in the Middle West. In 1937 North Dakota had the greatest number of high schools playing, 120. In 1953 Minnesota led with 188, followed by Nebraska with 180. Nebraska, the home state of the game, has experienced a slow but steady increase from 40 high schools in 1937 to 180 in 1953. In 1953 three states, Montana, South Dakota, and North Dakota had more high schools playing six-man football than eleven-man.

Has six- man football grown at the expense of the eleven-man game? A look at the record indicates that over 1000 more high schools were playing eleven-man football in 1953 than in 1937. The percentage of high schools that were playing eleven-man increased from 43 per cent in 1937 to 49 per cent in 1953. Some of this increase resulted from small schools with growing enrollments changing from six-man to eleven-man. Less than half of the high schools had football, six or eleven-man in 1937, while nearly three-fifths had teams in 1953, a gain of over 3000 schools. The remain-

(Continued on page 61)

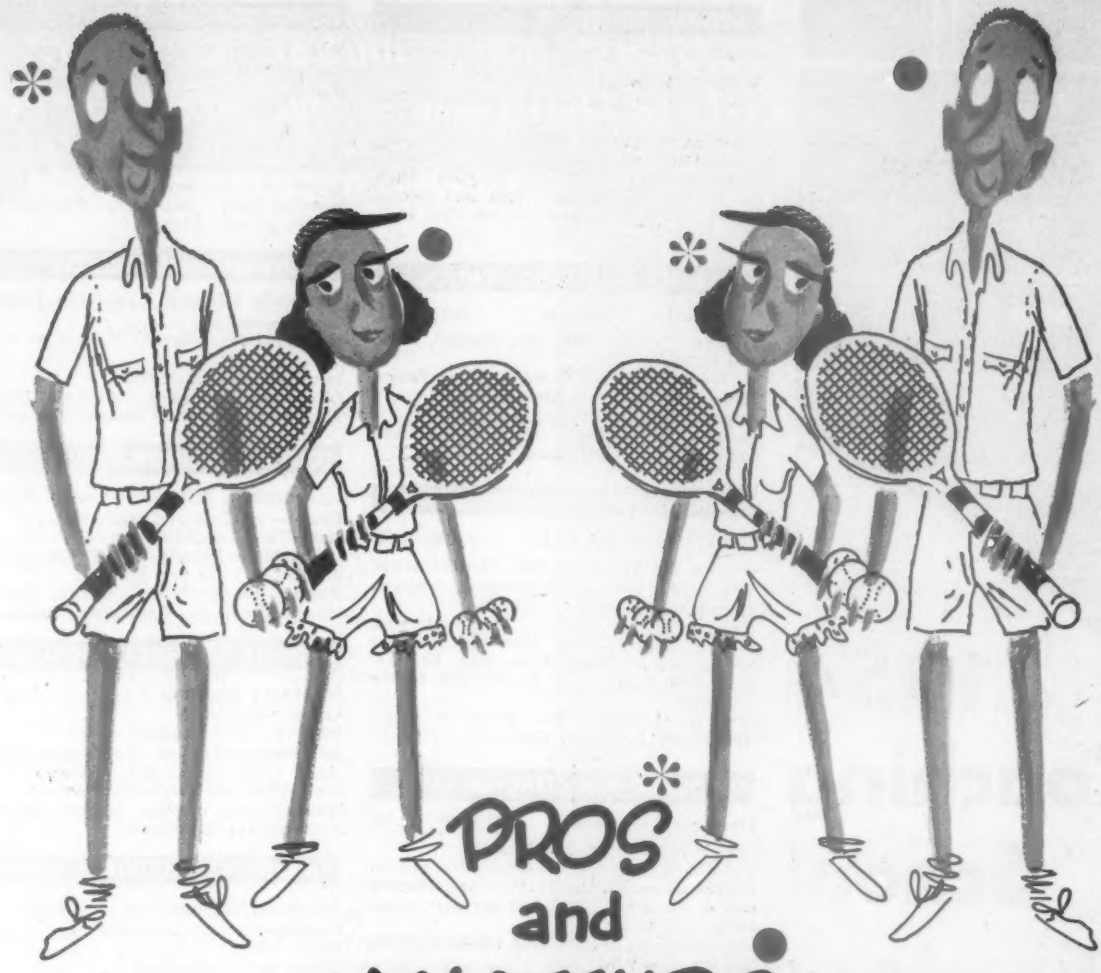
By STEPHEN EPLER

Director, Day Program, Portland State Extension Center

Interscholastic Sports in the High Schools of the United States, 1953-54
Number of High Schools Playing

State	High Schools in state organization	6-Man Football	11-Man Football	Basketball	Track	Baseball	Softball
Alabama	340		272	340	76	291	110
Arizona	74	19	48	73	54	65	10
Arkansas	467		156	453	360	98	150*
California	523	32	455	514	468	481	8
Colorado	244	66	123	244	200*	175*	100*
Connecticut							
Delaware	42		29	42	21	40	
Florida	256	12	170	240	90	120	
Georgia	421		173	421	250*	275*	
Idaho	140	11	92	140	76	103	9
Illinois	747	40	354	701	584	593a	
Indiana	773	21**	161	756	542	535	225
Iowa	950	48**	277	950	418	741	10*
Kansas	648	135	415	630	450	225	55
Kentucky	469	16	109	464	97	246	
Louisiana	420	50	250	400	300	300	
Maine	248	8	61	190	35*	208	
Maryland	137	1	24	135	32	95	30
Massachusetts	256	10	184	256	113	247	6
Michigan	723	25	500	700	400	650	50
Minnesota	484	188	276	478	335	431	
Mississippi	480		200	475	60	50	30
Missouri	700	19**	205	700	430	280	363
Montana	186	93	56	186	100*	40*	
Nebraska	530	180	181	510	400	125	40*
Nevada	37	9	18	37	24	12	
New Hampshire	95	1	27	95	50*	85*	
New Jersey	200	8	150	200	150	200	
New Mexico	128	2	65	128	87	84	20*
New York	699	159	313	695	452	694	413
North Carolina	400	8	201	400	20	81	
North Dakota	380	115	75	375	140	100	
Ohio	1066	80	521	1065	649	880	
Oklahoma	682	6	221	682	159	530	17
Oregon	240	42	151	220	184	196	
Pennsylvania	1089		622	922	375	658	
Rhode Island	33		32	33	15	33	
South Carolina	279		176	279	60	256	
South Dakota	276	110	76	276	221	12	18
Tennessee	418	7	247	416	73	174	
Texas	1105	174	768	1105	1105	670	1105
Utah	77		50	77	70	62	
Vermont	99		25	60*	20*	65*	
Virginia	360	14	170	360	120	360	200
Washington	275	14	188	275	160	246	
West Virginia	231		171	224	66	71	12
Wisconsin	448	74**	259	445	232	378	
Wyoming	86	21	36	86	58		5
GRAND TOTAL	18961	1818	9333	18453	10381	12261	2986
PERCENTAGE	100	9.59	49.22	97.32	54.75	64.66	15.75

* Approximate figures
** Includes eight-man
a Includes softball



PROS and AMATEURS

CHOOSE GOLD MEDAL NETS!

Yes, it's a fact — players, pros, coaches and club managers — prefer Gold Medal Nets — *quality* nets designed to meet the requirements of every sport.

- For practical low cost nets — it's Gold Medal.
- For deluxe championship nets — it's Gold Medal.
- For top value in *any* net — it's Gold Medal.

Makers of fine nettings for 112 years

Gold Medal Nets

THE LINEN THREAD CO., INC.

418 GRAND STREET, PATERSON 1, N. J.

60 East 42nd St., New York 17, N. Y. | 140 Federal St., Boston 10, Mass. | 105 Maplewood Ave., Gloucester, Mass.
Lombard & Calvert Sts., Baltimore 3, Md. | 158 W. Hubbard St., Chicago 10, Ill. | 116 New Montgomery St., San Francisco 5, Cal.

1954 Coaching School Directory

ADELPHI COLLEGE C. S.

Garden City, L. I., N. Y. — **Aug 9-11**

Courses—Basketball.
Staff—John Bach, J. Birney Crum, and Dan Lynch.
Information—Tuition $15.00 includes room. Board $2.00 to $2.50 per day.
Directors—John E. Sipos, Simpson High School, Huntington, New York and George Faherty, Adelphi College, Garden City, L. I., New York.

ALABAMA COACHING SCHOOL

Tuscaloosa, Alabama — **Aug. 9-12**

Courses—Football, basketball, baseball, track, and training.
Staff—Lowell "Red" Dawson, Bruce Drake, Happy Campbell and Charles Stapp.
Information—Tuition and room free.
Director—H. D. Drew, University of Alabama, University, Alabama.

CALIFORNIA WORKSHOP

San Luis Obispo, Calif. — **Aug. 9-20**

Courses—Football, basketball, baseball, track, tennis, swimming, golf, training, archery, gymnastics, and physical education.
Staff—"Chuck" Taylor, "Puck" Dowell, "Paddy" Cottrell, Jess Mortensen, Homer Beatty, George Bican, Elam Hill, Ken Fagans, Bob Fatjo, Gene Smith, and Myron Anderson.
Director—Al Arps, San Fernando High School. San Fernando, California.

COLORADO H.S. COACHES ASSN.

Denver, Colorado — **Aug. 18-20**

Courses—Football and basketball.
Staff—"Biggie" Munn and Branch McCracken.
Information—Tuition $10.00. Approximate cost of room $5.00 to $10.00 per day; board $3.00 to $5.00 per day.
Director—N. C. Morris, 1532 Madison Street, Denver, Colorado.

COLORADO, UNIV. OF

Boulder, Colorado — **June 14-19**

Courses—Football, basketball, track, baseball, and training.
Staff—Ray Eliot, Dallas Ward, Bebe Lee, Frank Potts, Frank Prentup, John Rockwell, and Forrest Twogood.
Information—Tuition $10.00.
Director—Harry G. Carlson, University of Colorado, Boulder, Colorado.

See advertisement page 40

CONNECTICUT, UNIV. OF

Storrs, Conn. — **Aug. 24-26**

Courses—Football and basketball.
Staff—Red Dawson, Len Waters, Bob Ingalls, Ken Loeffler, and Hugh Greer.
Director—J. O. Christian, Athletic Director, University of Connecticut, Storrs, Connecticut.

FLORIDA STATE UNIV.

Tallahassee, Florida — **June 10-12**

Courses—Football.
Staff—Directed by Tom Nugent and staff.
Information—Registration fee $15.00 includes room.
Director—Howard G. Danford, Director of Athletics, Florida State University, Tallahassee, Florida.

See advertisement page 54

IDAHO COACHES ASSN. C. S.

Sun Valley, Idaho — **Aug. 9-13**

Courses—Football, basketball, track, and training.
Staff—Chuck Mather, Everett Shelton, Duffy Holt, Stan Heiserman, and Joe Glanders.
Information—Tuition $10.00 for members; $15.00 for non-members. Room and board $50.00 for entire week.
Director—Jerry Dellinger, Jerome High School, Jerome, Idaho.

ILL. NORMAL-WESTERN C.S.

Macomb, Illinois — **June 8-9**

Courses—Football.
Staff—Forest Evashevski. Others to be announced.
Information—Tuition free.
Director—Ray Hanson, Athletic Director, Western Illinois State College, Macomb, Ill.

SOUTHERN ILLINOIS UNIV.

Carbondale, Illinois — **Aug. 3rd wk.**

Courses—Football and basketball.
Staff—To be announced.
Information—Tuition free. Room $2.00 per day; board $1.75 per day.
Director—Glenn "Abe" Martin, Southern Illinois University, Carbondale, Illinois.

INDIANA BASKETBALL SCHOOL

Kokomo, Indiana — **Aug. 5-7**

Courses—Basketball.
Staff—To be announced.
Information—Tuition $10.00 does not include room and board. Average cost of room $3.00 and board $4.00 per day.
Director—Cliff Wells, Tulane University, New Orleans, Louisiana.

KANSAS H.S. ACTIVITIES ASSN.

Wichita, Kansas — **Aug. 18-22**

Courses—Football, basketball, and training.
Staff—"Duffy" Daugherty and Bill Meek. Others to be announced.
Information—Tuition $10.00.
Director—E. A. Thomas, 1300 Topeka Blvd., Topeka, Kansas.

KANSAS, UNIV. OF

Lawrence, Kansas — **June 10-Aug. 7**

Courses—Basketball and training.
Staff—Forrest C. "Phog" Allen.
Information—Regular summer session fees.
Director—Henry A. Shenk, University of Kansas, Lawrence, Kansas.

LOUISIANA H.S. COACHES ASSN.

Baton Rouge, Louisiana — **Aug. 4-6**

Courses—Football.
Staff—"Chuck" Mather and Hugh Daugherty.
Information—Tuition $3.00. Housing free to all coaches.
Director—Woodrow W. Turner, Byrd High School, Shreveport, Louisiana.

UNIV. OF MARYLAND

College Park, Maryland — **June 24-26**

Courses—Football, basketball, and training.
Staff—Jim Tatum, Bud Milliken, and Duke Wyre.
Information—Tuition for high school coaches $15.00; college coaches $25.00. Fee includes room; board $3.00 per day.
Director—Robert Ward, Box 295, University of Maryland, College Park, Maryland.

See advertisement page 59 February

From huge stadium to tiny horseshoe court . . . there's better play under CROUSE-HINDS Floodlights

Spectator's like them too!

You'll have bigger attendance at a well lighted field.

A Crouse-Hinds floodlight installation is an assurance that you will have a well lighted field . . . where both players and spectators can follow the play at night as well as in broad daylight.

Crouse-Hinds Type FLA is tops in high efficiency lighting, scientifically designed to get the maximum amount of light on the playing field. It's designed for easy maintenance too. Relamping and cleaning are so easy that upkeep costs are at a minimum. Type FLA has a two-piece Alzak reflector . . . cast aluminum head and body . . . extra large opening for cleaning . . . hinged body . . . self-aligning stop . . . degree markings, and a sight for accurate aiming. Crouse-Hinds high standards of quality and skillful workmanship insure long life and dependable service.

For more that twenty-five years Crouse-Hinds Illumination Department has planned the efficient lighting of all kinds of playing fields, large and small. This wealth of experience is at your service. Their engineers will gladly recommend the proper selection and arrangement of floodlights for any application.

Send for the latest Sports Lighting Bulletin. It contains lighting layouts for dozens of different sports. It's FREE for the asking.

CROUSE-HINDS COMPANY
Syracuse 1, N. Y.

OFFICES: Birmingham — Boston — Buffalo — Chicago — Cincinnati — Cleveland — Dallas — Denver Detroit — Houston — Indianapolis — Kansas City — Los Angeles — Milwaukee — New Orleans New York — Philadelphia — Pittsburgh — Portland, Ore. — San Francisco — Seattle — St. Louis — St. Paul Tulsa — Washington. RESIDENT REPRESENTATIVES: Albany — Atlanta — Baltimore — Charlotte Corpus Christi — Reading, Pa. — Richmond, Va. — Shreveport
Crouse-Hinds Company of Canada, Ltd., Toronto, Ont.

Type FLA . . . the modern floodlight designed especially for sportslighting by sportslighting experts.

A Nationwide Distribution Through Electrical Distributors

FLOODLIGHTS · AIRPORT LIGHTING · TRAFFIC SIGNALS · CONDULETS

Coaching School Directory

(Continued from page 36)

MICH. STATE C. S.

East Lansing, Michigan — **May 6-8**

Courses—Football.
Staff—"Biggie" Munn, "Red" Sanders, Bud Wilkinson, and "Duffy" Daugherty.
Information—Enrollment fee $2.00.
Director—Football Coaches' Clinic, Continuing Education Services, Michigan State College, East Lansing, Michigan.

See advertisement page 40

NORTHERN MICHIGAN C.S.

Marquette, Michigan — **Aug. 5-7**

Courses—Football, basketball, and track.
Staff—Bennie Oosterbaan, Dr. Forrest C. Allen, and Jim Kelly.
Information—Tuition $12.00 includes room and board.
Director—C. V. "Red" Money, Northern Michigan College, Presque Isle Ave., Marquette, Michigan.

MICHIGAN, UNIV. OF

Ann Arbor, Michigan — **June 21-July 2**

Courses—Football, basketball, track, training, golf, wrestling, and intramurals.
Staff—Bennie Oosterbaan, William Perigo, Don Canham, James Hunt, Albert Katzenmeyer, Clifford Keen, and Earl Riskey.
Information—Tuition $20.00 resident; $30.00 non-resident. Approximate cost of room and board for two week period in dormitory $45.00.
Supervisor of Course—Howard C. Leibee, Waterman Gymnasium, University of Michigan, Ann Arbor, Michigan.

UPSTATE N. Y. BASKETBALL C. S.

Delhi, New York — **July 1-3**

Courses—Basketball.
Staff—"Dudey" Moore and "Taps" Gallagher. Others to be announced.
Information—Tuition $15.00; $25.00 for two men from the same school.
Director—Edward J. Shalkey, Delaware Academy, Delhi, New York.

OHIO H.S. COACHING SCHOOL

Springfield, Ohio — **Aug. 9-13**

Courses—Football.
Staff—"Duffy Daugherty, "Woody" Hayes, Carroll Widdoes, and Sid Gillman.
Information—Tuition $15.00 does not include board and room. Cost of room $6.50 to $10.00 per day; board $3.00 to $4.50 per day.
Directors—L. G. Ronemus and James A. McDonald, Senior High School, 700 S. Limestone St., Springfield, Ohio.

OKLAHOMA COACHES ASSN.

Oklahoma City, Oklahoma — **Aug. 8-12**

Courses—Football and basketball.
Staff—Don Faurot, Gomer Jones, and Bowden Wyatt. Others to be announced.
Information—Tuition $10.00. Average cost of room $3.50 to $5.00 per day; board $3.00 to $4.00 per day.
Director—Clarence Breithaupt, 3420 N. W. 19th St., Oklahoma City, Oklahoma.

OREGON, UNIV. OF

Eugene, Oregon — **June 14-19**

Courses—Football, basketball, baseball, track, and wrestling.
Staff—"Red" Sanders, Pete Susick, Robert Feerick, Bill Borcher, Don Kirsch, Bill Bowerman, Robert Newland, and Bill Hammer.
Information—Tuition $14.00. May be applied toward regular summer session tuition. Dormitory rooms $2.00 per day.
Director—Dean Paul Jacobson, University of Oregon, Eugene, Oregon.

See advertisement page 54

EASTERN PA. COACHES ASSN.

East Stroudsburg, Pa. — **June 21-24**

Courses—Football and basketball.
Staff—Eddie Erdelatz, Forrest Evashevski, Sid Gillman, and Ben Carnevale.
Information—Tuition $40.00 includes room and board.
Director—Marty Baldwin, Box 205, East Stroudsburg, Pennsylvania.

PENN STATE COL.

State College, Pa. — **June-Aug.**

Courses—Basketball, training, life saving and water safety, and intramurals.
Staff—Elmer A. Gross and Charles E. Medlar.
Information—Tuition $11.00 per credit hour. Approximate cost of room $1.00 per day (double room) per person; board $2.00 per day per person.
Director—M. R. Trabue, Room 102, Burrows Bldg., State College, Pennsylvania.

RIVER FALLS COACHING CLINIC

River Falls, Wisconsin — **June 10-12**

Courses—Football, basketball, and training.
Staff—Bud Wilkinson and Bucky O'Connor. Others to be announced.
Tuition—$15.00.
Director—Phil Belfiori, Wisconsin State College, River Falls, Wisconsin.

SO. CAROLINA COACHES ASSN.

Columbia, South Carolina — **Aug. 1-6**

Courses—Football and basketball.
Staff—Ray Eliot, Bob King, "Red" Sanders, and Eddie Hickey.
Director—Harry Hedgepath, 1623 Harrington St., Newberry, South Carolina.

TEXAS H.S. COACHES ASSN.

Dallas, Texas — **Aug. 9-14**

Courses—Football, basketball, baseball, track, and training.
Staff—"Red" Sanders, Bobby Dodd, R. Graves, Frank Broyles, Jess Neely, Joe Davis, Cecil Grigg, Alex Hooks, Frank Anderson, and Wayne Rudy. Others to be announced.
Information—Approximate cost of room $3.00 per day.
Director—L. W. McConachie, 2901 Copper St., El Paso, Texas.

See advertisement page 56

UTAH STATE COACHING SCHOOL

Logan, Utah — **June 1-5**

Courses—Football, basketball, baseball, and training.
Staff—Jim Tatum and "Tippy" Dye.
Information—Tuition $10.00.
Director—John Roning, Athletic Director, Utah State College, Logan, Utah.

See advertisement page 60

VA. HIGH SCHOOL LEAGUE

Blacksburg, Virginia — **July 1-3**

Courses—Football, basketball, baseball, track, and training.
Staff—To be announced.
Tuition—To be announced. Average cost of room $1.00 and board $1.80 per day.
Director—Frank O. Moseley, Athletic Director, Virginia Polytechnic Institute, Blacksburg, Virginia.

VIRGINIA STATE COLLEGE

Petersburg, Virginia — **July 6-10**

Courses—Football and basketball.
Staff—James Tatum, "Chuck" Mather, and "Dudey" Moore.
Director—S. R. "Sal" Hall, Virginia State College, Petersburg, Virginia.

WASHINGTON H.S. COACHES

Seattle, Washington — **Aug. 15-21**

Courses—Football, basketball, baseball, track, and training.
Staff—Jack Curtice, Bruce Drake, Earl Johnson, and Roland Logan. Others to be announced.
Information—Tuition free to members; $10.00 for non-members.
Director—A. J. Lindquist, 3215 E. Mercer, Seattle, Washington.

WEST VIRGINIA UNIVERSITY

Morgantown, W. Va. — **June 3-July 9**

Courses—Football, basketball, baseball, and training.
Staff—Art Lewis, "Chuck" Mather, Carney Laslie, Red Brown, Branch McCracken, I. E. Rodgers, Steve Harrick, Whitey Gwynne, and Charles Speidel.
Information—Tuition $5.00 per credit hour for residents of West Virginia; $8.00 per credit hour for non-residents. Average cost of room and board $3.00 per day.
Director—Ray O. Duncan, Dean, School of Physical Education and Athletics, West Virginia University, Morgantown, West Virginia.

WISCONSIN H.S. COACHES ASSN

Madison, Wisconsin — **Aug. 9-13**

Courses—Football, basketball, baseball, track, training, tennis, and wrestling.
Staff—Ivy Williamson, Bud Foster, Art Mansfield, Riley Best, Walt Bakke, Carl Sanger, and George Martin.
Information—Tuition $1.00 for members; $10.00 for non-members. Average cost of room $1.50 and board $2.50 per day.
Director—Harold A. Metzen, 1809 Madison St., Madison, Wisconsin.

when support is needed... send ACE® to bat

When support is needed for muscles or joints, **ACE** Rubber-Elastic Bandage helps keep your team in tip-top shape. Used all over the world for the prevention and treatment of common athletic injuries, **ACE** Rubber-Elastic Bandage is especially valuable to the baseball trainer, for it provides the type of support that enables key players to *stay* off the bench.

ACE Elastic Bandages provide *economical* support, too. They are

long-lasting—can be used over and over with virtually no loss of elasticity.

washable—no need to discard **ACE** Bandages because of soiling.

unaffected by storage—makes quantity buying practicable and economical.

ACE Rubber-Elastic Bandage No. 8 (5½ yds. fully stretched): 2", 2½", 3", 4" and 6" widths. Handy Roller* 2½".

Also Available

ACE Cotton Elastic Bandage No. 1 (5½ yds. fully stretched): 2", 2½", 3", 3½", 4", 5", 6", 8" and 10" widths. Handy Roller* 2½".

ACE Adhesive Elastic Bandage No. 10 (3 yds. unstretched): 2", 2½", 3" and 4" widths.

*3 yds. fully stretched.

ACE Bandages Are Made *Only* By

BECTON, DICKINSON AND COMPANY · RUTHERFORD, N. J. B-D

ACE, T.M. Reg. U.S. Pat. Off.

OUT IN FRONT

FAIR PLAY FB-50 FOOTBALL SCOREBOARD

For years Fair Play has been *OUT IN FRONT* with the finest features in scoreboard equipment. Controls are handled by simple, fast working telephone dials. The FB–50 is big, attractive and dependable.

FAIR PLAY FF-1S ALL-PURPOSE SCOREBOARD

Whether for Football, Basketball, Baseball or any other athletic event, there's a Fair Play Scoreboard to fit your need.

FAIR PLAY MFG. CO.
73 Thayer St., Des Moines, Iowa

UNIVERSITY OF COLORADO
COACHING SCHOOL
Boulder, Colo. June 14 - 19

STAFF

- RAY ELIOT, Illinois (Football)
- DALLAS WARD, Colorado (Football)
- FORREST TWOGOOD, U.S.C. (Basketball)
- BEBE LEE, Colorado (Basketball)
- FRANK POTTS, Colorado (Track)
- FRANK PRENTUP, Colorado (Baseball)
- JOHN ROCKWELL, Colorado (Training)

Plus others to be announced

TUITION: $10

For further information write:

HARRY G. CARLSON
Univ. of Colorado Boulder, Colorado

Official for Collegiate Competition

WEB BED TRAMPOLIN

Large Size, Folding Type
HIGHER QUALITY, LOWER COST

Designed by Bob Fenner, Nationally Known Trampolin Authority

PARTS AVAILABLE FOR ALL TRAMPOLINS

Write for FREE LITERATURE

FENNER-HAMILTON CO.
359 So. Harrison St.
DENVER 6, COLORADO
Phone: Florida 6472

Most of the Games

(Continued from page 26)

efforts the coach should recall from the box score the performance of each batter in each inning and remember, if possible, any error in technique or execution that might have helped the team.

The first batter may have helped the pitcher out of a *hole* by swinging at a bad *three-two* pitch. The second hitter may have doubled into right field and failed to touch first base. The third hitter may have walked and then missed the steal signal on the second pitch. With two out the clean-up batter may have been called out on strikes. Each of these players has committed an error which has hurt his team's offensive effort. Without those mistakes the team might have scored two or three runs in the inning. Such facts, brought to light, and discussed fairly and constructively for the benefit of the individual and the squad will greatly improve the team's offensive efforts. They will also help by giving the players an idea of their coach's theory of the game which must be understood if they are to play well for him. As the season progresses the players, if they are thinking, will anticipate the coach's signals as the various situations arise.

In discussing the game the same afternoon it is played the coach can easily select the type of drills which must be used to strengthen the weaknesses that are evident. He also shows his players, while the game is fresh in their minds, how they can improve their individual and team play.

Defensively the coach probably knows what his team can do, but offensively he may be completely in the dark as to the relative merit of his players. One of the things which he must check constantly is the offensive record. Many times he may be misled regarding a boy's effectiveness at the plate.

Frequently a boy's game performance under pressure will not closely approximate his showing in practice.

One of our senior letter men was a boy who had hit over .400 in one of the leading junior leagues. He hit the ball well in practice and against some of the early straight-ball pitching but as we moved into the tougher competition we felt he was not carrying as much of the offensive load as he should. A check of the offensive charts showed an even bleaker picture than we had dreamed. In the previous six ball games this boy had been at the plate twenty-six times. He had walked twice, struck out eight times, and had only one base hit.

A sophomore, a small boy whom we knew could hit only a short ball, was inserted into the line-up in the hope that he could bolster our offense by getting some bases on balls. Over the next period of six games he appeared at the plate twenty-eight times, drew ten walks, struck out only twice and, much to everyone's surprise, contributed six singles for a neat .333 batting average. He finished the year just a point or two over the .300 mark but throughout the season he was a thorn in the side of the opposing teams because he was able to get on base two or three times in every game.

Without the records to confirm what he believes to be true the coach is likely to continue through the season with a boy who looks good up there at the plate but who is not delivering when a hit is needed.

One method the coach may use to insure that he keeps a close watch on his team's offensive effectiveness is to prepare a chart containing the name of each player on the squad. He should bring the chart up to date immediately following each game, noting carefully the strike-out and base

FOOTBALL'S Greatest Clinic

FEATURING

MUNN

SANDERS

WILKINSON

DAUGHERTY

MAY 6-7-8

MICHIGAN STATE COLLEGE

Enrollment fee only $2

Housing available on campus at reasonable rates.

For information write to:

Football Coaches' Clinic
Continuing Education Services
Michigan State College
East Lansing, Michigan

on balls columns. Information from the chart can be used to stress individual excellence. However, it is probably best for the coach to keep the complete chart to himself. A part of such a chart is shown.

Enough space should be provided so that the game by game record can be added to the total. Thus, the entire season's effort is available at a glance.

A chart of this kind is not only valuable during the current season, but it is a good thing for the coach to study prior to the new season to help him determine the offensive effectiveness of the returning letter men and the batting order for the early games.

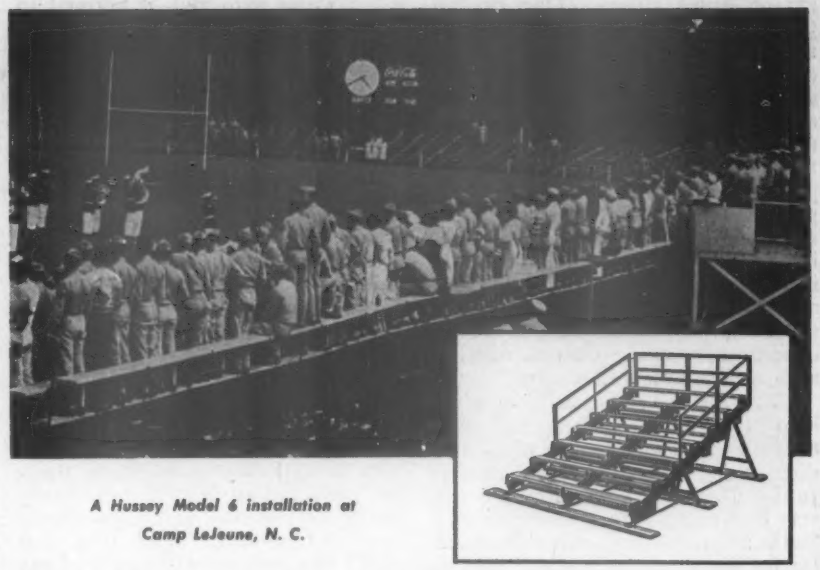
These are some of the methods a coach can use to *make the most of the games.* When teaching young boys to play the game of baseball every experience must be made a learning experience. For a coach to permit his players to lose the value of so vivid and easily recalled an experience as a game is to let the opposition get ahead of him.

Tennis

(Continued from page 14)

ship tournament. They guarantee finances, purchase trophies, provide housing and picnic suppers for players; in fact, they do everything except actually conduct the tournament. The personal interest of Junior Chamber members and tennis patrons makes an unusual atmosphere for a tournament and visiting players always want to come back again next year.

The Missouri Valley Tennis Association: This is a sectional association under the U.S.L.T.A. The officers and committees of this association are interested primarily in the development of young players. Some funds are available for promotion and the instruction of the more promising boys and girls. Several Winfield players have been selected to represent the Missouri Valley in the National Junior and Boys' Championships. They have received material assistance from the Missouri Valley Association. Also, some of our players have been privileged to watch Junior Davis Cup and Wightman Cup training squads while in training and they have been given professional instruction and help at very little cost to the individual. This kind of service could not be obtained for players in a small community except through the help of the sectional association. The sectional association also renders valuable assistance to member clubs by helping them or-



A Hussey Model 6 installation at Camp LeJeune, N. C.

Let One Set of Seats Do Your Outdoor and Indoor Seating Job

Hussey patented Portable steel stands are the economical answer to your all-round seating problem. Hussey "Portables" can be easily moved from field to field, or into the gym for indoor needs. No skilled help is needed and they require only 2.2 minutes per seat to take down and re-assemble. Additional sections can be added as needed.

Hussey "Portables" are safe (have a safety factor of 4 times the load requirement), require a minimum of upkeep and are moderate in cost. They are standard equipment in leading schools, universities, municipalities, military camps, etc.

Because of their versatility Hussey Model 6 and Model 8 "Portable" stands mean increased revenue at the lowest possible cost. They are available for prompt delivery in 6, 10 and 15 tier sections. Hussey also specializes in custom-built permanent steel grandstands to meet your exact requirements.

Whether your seating problem is immediate or in the future, get complete information on a Hussey installation. Our Engineering Department is at your service without cost or obligation.

FREE illustrated Hussey Seating Catalog sent on request. Write today!

Iron Workers HUSSEY SAFE-STAYING Since 1835

HUSSEY MFG. CO., INC.

544 Railroad Avenue ● No. Berwick, Maine

Also manufacturers of—Diving Boards, Floats, Piers, Water Sports Equipment, Flag Poles, Fire Escapes and Miscellaneous Iron

ganize tennis clinics. One or two topnotch players are scheduled to meet with the young players for a day or two and give them help with their strokes, footwork, tactics, court conduct, and training procedure. After this intensive period of instruction for the youngsters the experts then play exhibition matches with local players to demonstrate how the game is supposed to be played. These clinics are invaluable, especially if the instructors have national ranking and are well known. Almost any first rate player can demonstrate to the inexperienced player who is willing and anxious to learn.

U.S.L.T.A.: This association gives help to young players indirectly through the sectional associations and directly by maintaining a National Junior Davis Cup squad where the very best young players in the United States are trained. From this squad Davis Cup team members are selected. The U.S.L.T.A. publishes many pamphlets and other source materials which are helpful to tennis instructors and players. Films of important matches and slow motion training films are made available for rental or purchase. This material has been found to be most helpful.

Training Young Players: A great deal has been written on this subject and material is available in books, magazine articles, pamphlets, and films. Nearly everyone can learn to play the game well enough to enjoy it and make a good showing among his fellow players. There are some essentials for all players.

First, a player must learn a proper grip for his racket. Youngsters who start playing on their own invariably use a wrong grip and, if allowed to continue, find it difficult to change. The next step is to get a beginner to stand sidewise to the net instead of facing it when he hits the ball. Standing sidewise is the beginning of proper footwork and is not generally done unless it is taught. It appears quite reasonable to a player once he is shown. He would not face the pitcher in baseball. In golf he would not face in the direction he expects the ball to travel. Good footwork identifies a trained player immediately.

Then, when he has learned the proper grip and has his feet in the correct position he is taught the forehand stroke. The importance of both the backswing and the forward swing of the racket is emphasized. The same procedure is followed to teach the backhand stroke. A great many young players do not have strong backhand strokes. The backhand stroke can be learned as well as the forehand, and players should be taught not to favor one over the other. Much of this preliminary instruction can be given indoors with a stroking machine, or against a practice board or a flat wall in a gymnasium. The serve, overhead, volley, and lob are the next strokes taught.

In all instruction the player must be taught to keep his eye on the ball. Many players develop a careless habit of merely glancing at the ball rather than focusing directly on it. As a result, the ball is hit all over the face of the racket, if it is hit at all.

In order to become better than average, players must have a certain amount of athletic ability, muscular co-ordination, timing, and rhythm. In most cases these are inherited traits — players either have them or they do not. What they do have can be improved and refined. All tennis players of note have very fast reaction. That is, they can see, think, and act almost instantly. A tennis ball moves faster than any other ball which must be hit while in motion. It must be hit exactly at the proper instant for good results. The player who is slow by nature or because of poor physical condition cannot expect to play top tennis.

A player must be able to use his hands deftly and he must have a sensitive wrist. The latter is most essential because it is through the wrist that all messages are transmitted from the brain to the racket. A person with a dead wrist can no more show accuracy in speed and placement than can a violinist produce quality in tones by bowing his violin with a stiff wrist.

Another quality necessary to successful play in competition is courage. Confidence in his own ability and the courage to perform under pressure are qualities which are indispensable for a winner. A player must have a little fire and fight in his system and the persistence to *stay in there* and not retreat by softening his game when crucial points are needed. Patience is required for hours, months, and even years of practice to gain proficiency in the various departments of the game.

Tennis is a wonderful *carry-over* sport and deserves to be promoted as a wholesome activity for young and old alike. The factors which have been discussed in this article are those which have been actually used in this community for the past several years.

Coaches Treasure Chest

Complete with "Easy-Does-It" forms for FOOTBALL or BASKETBALL

This handy zipper, ring binder case contains all the working tools for the coach. No more bulging pockets, no more lost material! Defensive man X and offensive man O rubber stamps and stamp pad plus an assortment of cards and charts for your football formations, practice schedules, squad rosters and attendance charts. (Basketball Treasure Chest includes court diagrams) Specify which you want. Special introductory offer Durable Waterproof Plastic $6.95. Genuine COWHIDE $9.75.

SATISFACTION GUARANTEED OR YOUR MONEY BACK

- ☐ Order on Approval
- ☐ Cash Payment
- ☐ Charge Library
- ☐ Charge Athletic Association
- ☐ Send C.O.D.

Use this advertisement as your handy order blank, just check your items and mail to

School-Aid Company

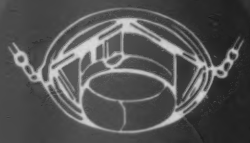
202-A Chester Avenue, Danville, Illinois

Your Specialists in Coaching Aids

Finest GYM APPARATUS Anywhere!

Side Horse

Parallel Bars

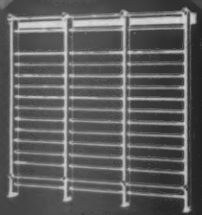


Pond — Medart Twisting Belt

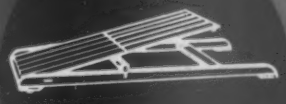
Medart

The Standard by which all other gym apparatus is judged — preferred above all others.

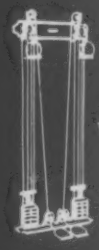
Flying Rings



Stall Bars



Springboard



Pulley Weights

MEDART'S LINE OF GYM APPARATUS IS COMPLETE

- Climbing Poles & Ladders
- Boxing Rings & Bag Supports
- Vault, Jump & Game Standards
- Stall Bars
- Physical Fitness Apparatus
- Rowing Machines
- Pulley Weights
- Mats & Mat Trucks
- Corrective Therapy Equipment
- Anthropometric Equipment
- Basketball Backstops
- Basketball Scoreboards
- Telescopic Gym Seats
- Steel Lockers
- Wire Baskets & Racks

Write For Catalog

FRED MEDART PRODUCTS, INC. • 3560 DEKALB ST. • ST. LOUIS 18, MO.

Batting Tees

By LOUIS JORNDT

Supervisor, Div. of Health and Phys. Ed., Board of Education, Chicago

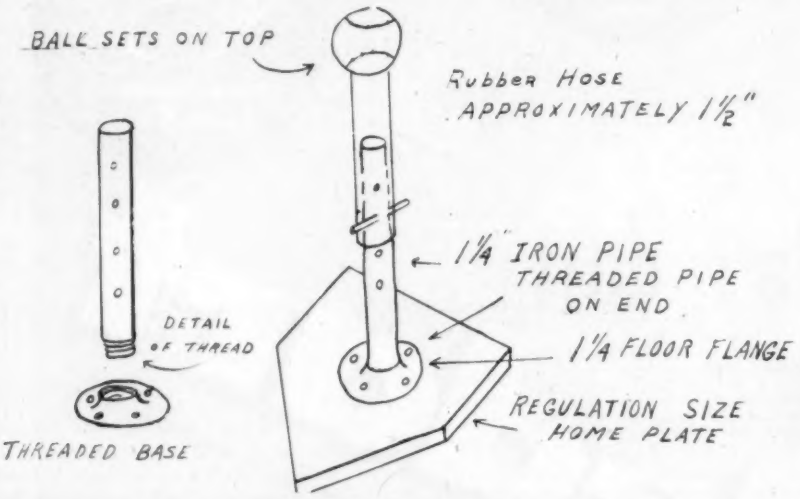
WE have successfully used two types of batting tees.

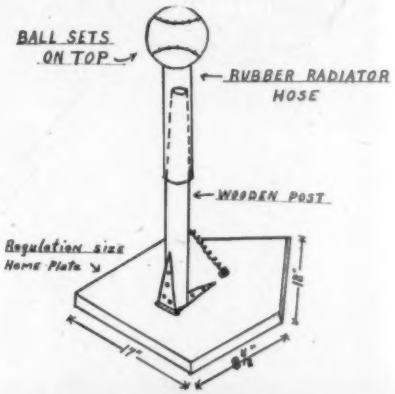
1. The base is a regulation size home plate and is made of 1 inch plywood or its equal.
2. The iron floor flange should be bolted to the center of the base.
3. Screw 24 inch by 1¼ inch iron pipe into the flange.
4. Slip a 24 inch by 1½ inch (inside dimension) piece of rubber radiator hose over the iron pipe.
5. Holes drilled through the pipe and hose may be used to adjust the height for children of various size.
6. A peg fits through the hole to hold the hose in place.
7. The base should be painted white – the pipe and hose may be painted any bright color.

The second tee is constructed in this manner.

1. The regulation size home plate which is shown is made of 1 inch plywood or its equal.
2. Attach a strap hinge to the base (one side only).
3. In attaching a wooden 2 inch by 2 inch by 24 inch post to the inside portion of the strap hinge bolts should be used.
4. This wooden upright should be

(Continued on page 46)





Build Y

Laminated Broad Jump Board

By LYLE BENNETT

Track Coach,
Central Michigan College of Education

USE of a wide surface for a broad jump take-off is not new; but the use of a laminated board made of *Celotex* is comparatively new. The material and idea were brought to our attention in 1949 by Mr. Joe Cogdal, track coach, Illinois State Normal University. At that time Mr. Cogdal was using this type of board as a take-off surface for high jumping. Since we have been using the laminated board the following advantages have been noticed.

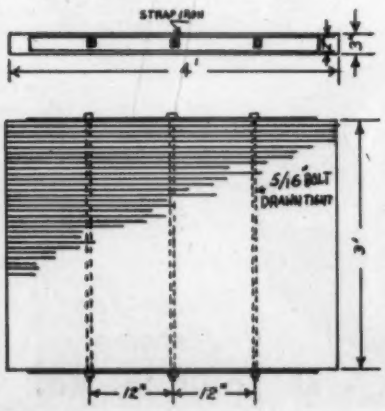
It has been estimated that 8,840 practice and meet jumps have been taken from the two boards we have used here at Central during the past two years.

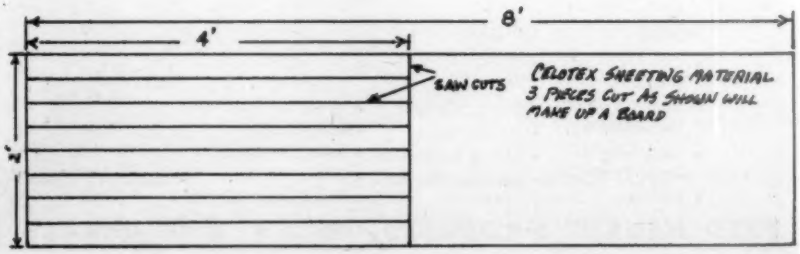
The laminated board may be used on the reverse side after it has had a season of wear. This effects a big saving in time and trouble as well as money, because once the board is set in for the season little or no work is required to keep it ready for use.

Neither injuries nor fear of them has been experienced during the two previous seasons. This factor alone

(Continued on page 46)

Drawings show end and top views.





Swimming Record Board

By CHARLES WILD

Swimming Coach, West High School, Rockford, Illinois

FOR some time we looked about for a record board for our swimming pool. Something that could be constructed in our own shops, was inexpensive, durable, and impervious to moisture was desired. We also wanted something on which we could change the records with a minimum of trouble and expense.

Finally, in conjunction with our woodshop instructor, we hit upon an idea which solved our problem.

Our swimming record board is a 9 foot by 5 foot sheet of ⅝ inch plywood which was treated with several coats of moisture-resistant material before painting. When painting we used a flat paint to avoid glare, and used only a gloss paint for the border and the lettering. The colors were pale green with dark green for the border and the lettering, to harmonize with the tile in our pool.

The names of the events and the records were put onto pieces of glass 5 inches by 24 inches in size. The pieces of glass are held in place with two wide-headed screws at the bottom and one at the top. The events were painted onto the glass because they are permanent, but the records are stenciled on. Thus, when a record is broken all that is necessary is to scrape off the old paint with a razor blade and stencil on the new record.

We used black paint for the records in order not to have the problem of matching paint when records are changed over a period of years.

The entire board is fastened to the wall with six expansion bolts. Total cost of the board was approximately $25.00.

We have space on the board for three sets of records: the pool record, the school record, and the East-West record, for the best time made in dual meets between the two city high schools. However, this space is intended for conference records if we eventually have enough teams for a conference meet.

The record board is a pleasing addition to our pool and has done much to create spectator and swimmer interest in performance.

ild Your Own Basketball Holder

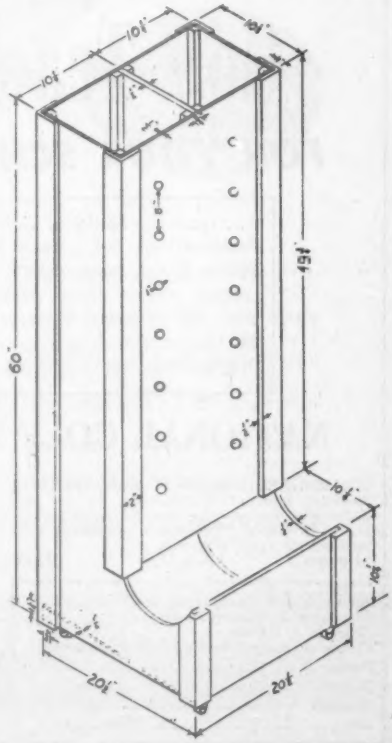
By WARREN L. CARTIER

Basketball Coach, Wauwatosa, Wisconsin, High School

MOST basketball coaches have trouble keeping basketballs in one place during gymnasium classes and practice periods. After our general warm-up shooting drill practice, we found it very annoying to have the basketballs lying in one corner of the gymnasium. They were either rolling onto the playing floor or tempting those players who were not actively participating in the drills. The towel bags were used for storage but that proved unsatisfactory. We took the balls back to the storage room, but then it seemed as if another one was always needed. Now these problems have been solved.

We designed and built this inexpensive basketball rack. Since the rack is portable it can be moved into the gymnasium for practice and rolled back to the storage room when practice is finished. It is light and maneuverable and will roll easily through any doorway. Using the dimensions given, the rack will hold 14 basketballs. If a smaller rack will suffice, merely cut down the overall height, figuring 10 inches per ball.

(Continued on following page)



No. of Pieces	Part	Thickness	Width	Length	Material
1	Front	½"	20½"	60"	Plywood
1	Flat Bottom	½"	20½"	20½"	Plywood
1	Slanted Bottom	¼"	20½"	20½"	Plywood
2	Sides	½"	20½"	60"	Plywood
1	Partition	½"	20½"	60"	Plywood
1	Back	½"	20½"	60"	Plywood
4	Front and Back Facing Strips	½"	2"	60"	White Pine
4	Rubber Wheel Casters				
2	Bottom Cleats	¾"	1¾"	59½"	White Pine
8	Inside Cleats	¾"	1"	60"	White Pine
4	Side Facing Strips	½"	2"	60"	White Pine
2	Caster Mounts	¾"	3"	20½"	White Pine

The holes in the front simplify the checking of the number of balls in the rack.

Some schools keep the basketballs for the high school team separate from those used by the gymnasium classes. This rack would certainly solve that problem. Yet, if desired, it could serve both the team and the gymnasium classes.

In previous years, several basketballs were always lost because we had no convenient way to check the number of balls. If the loss of one ball is prevented this season through the use of the rack, the materials used for its construction will have been paid for.

It is the menial tasks of coaching which, at times, make it a chore. Why not eliminate one of those headaches by making a rack like this?

The list of materials required is as shown on the preceding page.

Broad Jump Board

(Continued from page 44)

seems worth all the effort necessary to put this type of board into general use. It is our feeling that stretching and unco-ordinated efforts, often taken from a narrow board, have caused injuries to the big muscle groups of the thighs of broad jumpers.

As far as getting steps worked out is concerned, there is still as much of the old skill left in the event as before. In fact, we believe that the athlete is permitted, without penalty, to *collect* during his last two steps so that the *stamp* can be made from under his body, thus giving him a chance to execute a good leap instead of an entangled *long step* and unco-ordinated effort.

By keeping the board covered with a thin coat of lime, the entire distance of an athlete's performance may be recorded since we measure from the spot of take-off. During the time this method of measuring has been used, not a single dispute has arisen. Movies which have been taken show that the foot stamp is almost a flat-footed one, and the toe mark of this foot stamp has always been as easy to spot as the heels in the sand. Starting blocks helped us to set better dash marks a few years ago and the recording of an athlete's entire jump will, no doubt, tend to establish greater jumping marks. Stepping over the board is still considered a foul since there might be some advantage in pushing off from this spot.

Today's rule permits the use of a wider board and also encourages the use of the plan we have described in recording the entire jump.

Athletes at Central have shown a sharp increase in desire to practice off this surface. In fact, we have had many college and high school boys, who have not practiced on it, jump off this board with excellent results. The usual hamstring injuries that go along with stretching for the old eight-inch board are eliminated and obviously there is no chance for a heel bruise.

Batting Tees

(Continued from page 44)

tapered round at the upper portion so that a radiator hose 1½ inches will slip over it and be adjustable.

5. When the hose is hit it will move forward because of the hinge.

6. The hose will return to an upright position because of the spring.

7. The spring is attached appropriately to the base and to the upright to give the desired action.

8. The base should be painted white and the upright portion a bright red, orange, or green.

ask for these free

Golf Teaching Aids

FOR YOUR SCHOOL PROGRAM

. . . from the National Golf Foundation booth (No. 46, Parlor C) at the annual AAHPER Convention in the Statler Hotel, New York City, April 19-23—or use the coupon below. These materials are offered freely as aids to schools, municipalities and other agencies working to stimulate interest in golf and in broadening opportunities for participation in the game . . .

NATIONAL GOLF FOUNDATION, Inc.

COLLEGE AND UNIVERSITY GOLF SURVEY— Showing national participation in golf by University and college students during 1950-51, in Physical Education, Intramural and inter-school team activities.
24 pages **8½ x 11 in.** **FREE**

A GOLF PLAN FOR SCHOOLS — Successful methods used in teaching golf fundamentals to high school and college classes, including: Organizing the Golf Class, Equipment, Facilities, Competitive Performance Tests, and a Course of Study covering 16 weeks.
12 pages **6 x 9 in.** **FREE**

INTRAMURAL GOLF PROGRAM MATERIALS— Complete kit for staging intramural golf programs, includes: booklet "Suggestions for Conducting an Intramural Golf Tournament," a Play Golf poster, tournament draw sheets, certificates of awards and medals.
Complete Kit **FREE**

National Golf Foundation, Inc.
407 South Dearborn Street
Chicago 5, Illinois
Please send me Free Golf Aids for Schools.
Name .....
School .....
Address .....
City ..... **State** .....

Other Aids Available at Nominal Cost:

INSTRUCTOR'S GUIDE — For individual and group teaching incorporating information and illustrations for Group Instruction, Lesson Practice Using Indoor Facilities and Limited Outdoor Facilities, Developing Exercises, Selection and Care of Clubs.
60 pages **8½ x 11 in.** **Price $1.00**

☆

GOLF LESSONS — Golf's fundamentals as taught by America's foremost professional instructors. Illustrates and describes design, purpose and ranges of the various clubs, the correct grip, elements of the swing, essentials of good putting, and common errors in gripping and swinging.
32 pages **5½ x 8½ in.** **Price 25c**
Quantity discounts available.

☆

THE EASY WAY TO LEARN GOLF RULES — A simplified version of the Official Rules of Golf with 60 cartoons and illustrations. Entertaining as well as informative. Text on Rules published by permission of the USGA.
80 pages **3 x 4 in.** **Price 10c**
Quantity discounts available.

☆

HOW TO IMPROVE YOUR GOLF — An invaluable supplement in teaching the game. Covers golf from its origin to design of facilities and clubs. Includes 187 illustrations on the fundamentals: the Grip, Stance, Swing, Putting, etc.
74 pages **5½ x 8½ in.** **Price 50c**

☆

Discount information on request.

The same critical attention to design and balance that has made Louisville Slugger Bats *famous for performance* since 1884 goes into the manufacture of Louisville Grand Slam Golf Clubs. Write for free full-color catalogs. Address Dept. AJ

HILLERICH & BRADSBY COMPANY
LOUISVILLE, KENTUCKY

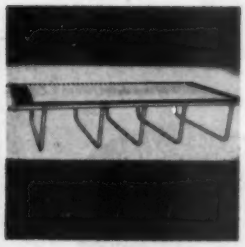
NEW ITEMS

IN EQUIPMENT AND IDEAS

For further information see Service Coupon, page 64

ONE of the outstanding innovations to come along in some time is this new rounded end cleat. The rounded end permits quicker turf penetration, easier pivoting, and results in fewer injuries to the wearer, opponent, and equipment. It is made of aluminum alloy and the smooth finish and new design keeps the cleat clean. The cleat is legal under the National Federation Football code of 1954 and will fit all types of football shoe assemblies. Free sample Globe Imperial Corp., 2025 Kishwaukee St., Rockford, Ill.

PICTURED is the cover of the new brochure featuring the Horn Folding Type Classroom Wardrobes. Three different types are shown — the receding type, the pivot type, and the folding type. While these are designed primarily for classroom use, their installation in gymnasiums affords many ideal ways to increase storage space for necessary gymnasium equipment such as mats, apparatus, etc. A brochure may be received by checking the Service Coupon, page 64, or by writing Brunswick-Balke-Collender Co., 623 S. Wabash, Chicago.



A real handy piece of equipment is this "Recreation Bouncer." It serves a threefold purpose of providing recreation as well as serving as an instruction aid and conditioner. In a number of schools it is used to teach skills in tumbling and diving. It has also been found to be an ideal conditioner for arm, shoulder, trunk, abdomen, and leg muscles and is used extensively by football and basketball players for this reason. Recreation Equipment Corp., 724 W. Eighth, Anderson, Ind.

THE new Wilson Football Equipment catalog features the new Tenite helmets, designed in several types of suspension and featuring Ensolite, the most effective shock absorbing material. Another outstanding feature in the new catalog is the new 1954 shoulder pads with black Ensolite covered epaulets and Vinyl Foam used in combination with Rubatex on the inside body padding on most models. Free catalog available from Wilson Sporting Goods Co., 2037 N. Campbell Ave., Chicago 47, Ill., or use the Service Coupon.

BASEBALL batting practice indoors without nets, cages or any additional setup is possible with this "Pitching Robot." It pitches 600 balls per hour without disrupting other activities that take place during indoor practice. It is harmless to individuals and fixtures and will not break glass. This machine can be obtained at less than one tenth the cost of other pitching machines. A sound film demonstrating its full use can be obtained from Dedoes Industries, 2070 W. 11 Mile Rd., Berkley, Mich.

Broad Jumping

(Continued from page 9)

ed run. We have been unable to correct his tendency to toe out slightly when he runs. John's stride is an even regular stride and, as a result, step problems have been eliminated. Most jumpers have sizable problems with step because the average athlete runs too fast and the knowledge of speed and stride is not present. Bennett has an uncanny knowledge of distance and seems to be able to vary his step about 25 feet before the board take-off.

In checking his run we might say that a two check marker is used. The first check is applied about 47 feet from the take-off board and the second can vary from 60 to 65 feet. His run starts about 21 feet beyond the 65-foot check. The marker of 60 or 65 feet must be hit exactly, but the second mark of 47 feet does not seem to be too important as far as John is concerned. He has not become check conscious.

When we mention that Bennett does not have step trouble we might add that during the indoor season he has no opportunities to jump other than in meets which are held away from home. As a result, he works very hard with the sprinters and occasionally high jumps. We do not maintain that high jumping is the best type of work for a broad jumper but in dual meets John triples in events such as the dash, broad jump, and high jump.

During the outdoor season, work with the sprinters continues and a great deal of practice is assigned to step. As a result, hitting the take-off board becomes more automatic. One day during the early part of each week, full speed runs are taken and actual jumps are made to see if the athlete's take-off in reference to center of gravity is perfected properly. Other work off the board is accomplished by half-speed running at much shorter distances with the idea of strengthening the take-off leg. John happens to be a right leg jumper, and we mention this because the majority of jumpers perform off the left leg.

During the summer of 1953 on his tour of the Scandinavian countries John was undefeated in his favorite event. He also competed in the 100 meters, high jump, and the 400-meter relay.

Bennett's rating in the broad jump this past year is worth mentioning. He rates first in college competition

MELVIN "BUS" SHIMEK graduated from Marquette in 1927 where he was national champion in the two mile. Ever since graduation "Bus" has been associated with his alma mater in the physical education department, as assistant, and more recently as head track coach.

and was selected for the collegiate All-American team — his best jump being 25 feet, 3 7/8 inches. He rates third in the world, behind Brown of the United States and Foldessy of Hungary, whose best jumps are 25 feet, 10¾ inches and 25 feet, 5½ inches respectively.

Athletic Trainer

(Continued from page 15)

to know (along with the doctor's) whether or not a boy is ready for a contest. He should keep weight charts on every candidate and watch them closely for fluctuations, especially a rapid loss of weight. He is in a very strategic position to study the moods and temperaments of those in his care and he can learn a great deal about mental attitudes and disturbing factors which definitely upset and affect an athlete's performance.

Preparatory to a game, it is the trainer who pads, tapes, protects, and relaxes areas of the body in order that the athletes may perform more efficiently. During the heat of competition, game, or practice, it is the trainer who administers, aids, and advises in case of injury. Naturally, the physician is summoned to the scene if necessary. Perhaps the most important phase of the trainer's job is rehabilitation, the treatment of injury, the bringing back to full recovery the use of damaged knees, ankles, shoulders, wrists, muscles, etc. This recovery is accomplished by use of therapy, massage, whirlpool, ice, diathermy, lamps, exercise, and good solid encouragement. The follow-up is extremely necessary, first for the welfare of the boy and second for the squad. All efficient trainers use it thoroughly and well.

The High School Story

The average enrollment of high schools in the United States is 150. It would follow that many of these schools do not sponsor interscholastic athletics, especially football. Hence, there is no need for the services of an

IN this picture we see the famous "Speedlock" used on Sico grandstands. This special locking device was originally developed for heavy duty construction scaffolding. The bleacher end frames are equipped with slotted pins. When a cross brace is placed over one of the pins a "Speedlock" slips down over the brace and fills the pin's slot, locking the two parts rigidly. This design permits the bleachers to be skidded to any position desired. Sico Grandstands, 3565 Wooddale, Minneapolis 16, Minn.

THE Rawlings "Fleetfoot" football shoes received a great deal of attention at the Football Coaches Convention. The "Fleetfoot" last is exclusive with Rawlings and the shoes are kept on the last a maximum amount of time to insure better fit and maximum comfort. These shoes are of Goodyear welt construction, and the choicest grades of oak-tanned leather are used for the outsoles. The uppers are stitched with nylon. Rawlings Sporting Goods Co., 2307 Lucas Ave., St. Louis 3, Mo.

THE new Wayne catalog, R-S4, features their "Rolling" grandstands. The 16-page catalog describes in detail economies in indoor seating, two-level gymnasium seating, types and sizes available, factors in selecting, operation, visibility, accessories available, planning aids, typical gymnasium floor plans, and specifications. This catalog will be of particular interest to school officials who are now planning or who anticipate installation of gymnasium seating in either new or existing construction. Wayne Iron Works, Wayne, Pa., or use the Service Coupon.

SPALDING'S new 1954 School Catalog features the famed J5-V football with the new process "Control It," and the new one-piece molded helmets which are padded with Vinyl, and the new cantilever shoulder pads also padded with Vinyl. Six pages of the catalog are devoted to equipment for Little League. All of Spalding's line of equipment for all sports is included along with a listing of valuable athletic books. Copies from A. G. Spalding & Bros., 161 Sixth Ave., New York 13, or use the Service Coupon.

THESE canvas topped, rubber cleated football shoes are being used in both college and high schools as practice shoes and for intramural sports. They have hard-digging rubber cleats that are permanently molded in the insole. The hard toe is designed for kicking. These shoes are particularly useful on muddy surfaces or very hard compacted fields or on frozen fields. They are light in weight, comfortable, completely washable, and very economical in price. U. S. Rubber Co., Footwear Division, Rockefeller Center, New York 20.

THIS outstanding batting tee is made of aluminum and rubber, and is mounted on a special base. The tee is adjustable in height for the strike zone and, therefore, can be used by Little Leaguers as well as school and college players. Included with the tee is a processed wool, soft baseball. The unit is weatherproof and is extremely reasonable in price, being only $5.95. The "Prak-Tis" Batting Tee is available from Jimknit Co., 433 Broadway, New York 13, N. Y.

athletic trainer. On the other hand, in all of our large cities and in many smaller cities, there are numerous high schools with enrollments of 500 students and up. These institutions do need athletic trainers. A recent survey of these schools would indicate that not more than one school in fifty (500 or more students) enjoys the services of a qualified full-time, trainer. A few have the services of a part-time or seasonal trainer.

All of these schools attempt to do something regarding the care of athletic injuries. Most of these attempts fall into one of the following categories: 1. Full-time athletic trainer. 2. Part-time athletic trainer. 3. Coaches taking over training duties. 4. Local physician on call for emergencies and attendance at contests. 5. Student trainers. 6. School nurse. 7. Sending injured players to local college trainers.

In the majority of cases these schools do not give the athletes the care that is available; that is, the services of a trainer are not secured.

Student trainers are not adequate for the obvious reason that they are not capable of handling the varied duties and lack the most important requisite, experience. They do, in all probability, try to do their best, but they are just not qualified for the job.

How much do students as trainers know about injury, its prevention, care and rehabilitation? Their education in the field is limited to first aid. The greatest lack is in experience which cannot be acquired during the time a boy is a high school student.

"It is not only necessary to know what are the hazards in athletics, when they occur and how they occur, but it is of paramount importance to know what to do when they have occurred and how to have prevented them.

"It would seem that any school or college which promotes athletic activities should feel a responsibility for the injuries occurring as a result of participation in these activities. Even though the physical examination and the physical and mental conditioning have been adequate, athletic injuries are bound to occur. The number and severity of the injuries will vary with the nature of the game.

"The study of accidents occurring in secondary schools indicates that when first aid is rendered by a physical educator the mean of the days lost incidence is reduced from 124.5 days to 84.1 days. The girls' data show a similar relationship-the days lost mean being reduced from 13.93 to 5.07 in institutions where the immediate treatment of an inqury is done by the physical education teacher.

"When a physician renders first aid the severity of the injury, as measured by days lost, is 75.3 average days per 1000 exposures. When the first aid treatment is given by the physical educator the days lost is 105, and the figure increases to 222 when a student endeavors to treat injury. The figures just quoted are for colleges."[3]

Naturally, the incidence of injury can be reduced considerably by proper supervision of sports, including the selection of qualified personnel, purchase and care of personal equipment, reducing the hazards of playing areas, proper officiating and a safer procedure in the type of play that is taught. Still 50 per cent of the injuries are due to the nature of

[3]Frank, S. L., Deaver, G. G., Eastwood, F. R., **Safety in Athletics:** Philadelphia, W. B. Saunders Co., 1939. p. 220.

B-H Sportsman HINGED KNEE BRACE

AVOID INJURIES

Ideal Aids for Prevention of Dislocation

Heavy, metal-hinged brace on both sides, permitting free knee-action.

ANKLETS★ and KNEE CAPS★

★ Seamless. *(No seams to irritate.)*
★ Soft, strong, pliable, highest quality elastic fabric.
★ Cost no more than ordinary wrapped bandages.
★ For all sprains, strains and swollen limbs.

WM. H. HORN & BROTHER
451 N. 3rd St., Phila. 23, Pa.

Sold by Leading Sporting Goods Houses

AMERICA'S LEADING MAKERS OF SURGICAL HOSIERY FOR OVER 100 YEARS

the game and must be expected and taken care of in an efficient manner.

The presence of an experienced trainer on the field of play for practice and game conditions will materially shorten the recovery period after injury and also prevent the occurrence of injury to a great degree.

In most of the high schools, the coaches of the various sports take care of the injuries to their players. Many of these coaches have had no formal schooling in the care of injuries and, furthermore, would like to be relieved of the responsibility in order to concentrate on the main job of coaching. Some of them do attend colleges and take courses in training.

Our high schools go in for athletics in a big way in many sports including football, basketball, baseball, track, wrestling, soccer, swimming, tennis, apparatus and others. Some of the schools participate in all of these events and some in only part of them. But in the larger schools where the student body rises well above 500 students, the presence of a trainer would add much impetus to the athletic program. However, how many of these schools are blessed with the services of an athletic trainer?

Superintendents, principals, and athletic directors will offer a long list of reasons why they do not hire an athletic trainer. Some claim they have been operating for years without one so why make a change now. Others follow the old reliable argument that they cannot afford one. Actually, if they secured the right man, he would save much more than his salary in doctor, hospital, and treatment bills which the school is forced to pay for the care of injured players.

When the high schools are hiring men for their coaching or physical education staffs they could very well include in the requirements of candidates the stipulation that they be versed and qualified as an athletic trainer. There are over 400 colleges or universities in our country which offer a four-year course in physical education. In the course of their studies these men take courses in the care and prevention of athletic injuries. Many work their way through school as student trainers under the supervision of some of the best athletic trainers in the larger schools of higher learning of our nation.

The University of Indiana offers a four-year course in physical education with a major in athletic training. Many other institutions stress the training of men who wish to follow the profession of care and prevention of athletic injuries. These men are all qualified to carry on the work in our secondary schools and colleges as trainers. Many of these men are taken into colleges as assistant trainers for more seasoning and then eventually work up to the head trainer position. Indiana University reports that they do not place men in high schools because there is no call for them.

RICHARD COLE graduated from Iowa State in 1931 where he was intercollegiate wrestling champion. For the next eight years he was wrestling coach and assistant trainer at Brown. In 1941 he became head trainer at Rhode Island, a position to which he returned after four years in the navy V5 program. Cole is also an assistant professor of physical education.

NISSEN "Hidden Hinge" Streamlines Trampoline*

NISSEN's NEW MODEL 77 introduces the revolutionary endless, smooth UNI-TUBE frame, making the "77" the Greatest of all Flashfolds. You Gain a Larger, Clear Working Surface and Faster, Easier Folding. The "77" was created by Nissen—First Name in Trampolining.

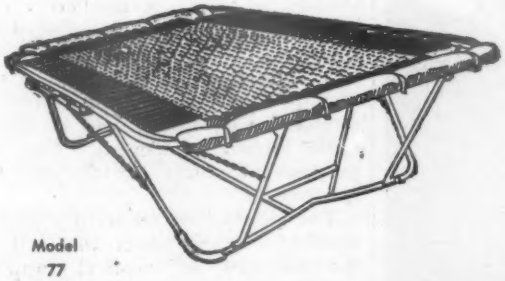
NEW, SMOOTH UNI-TUBE with "Hidden Hinge"

NO MORE PROJECTIONS Eliminates all Upthrust Hinges or joints

PADS FOLD FLUSH with Frame as "Hidden Hinge" opens

PADS DON'T BUNCH or PINCH

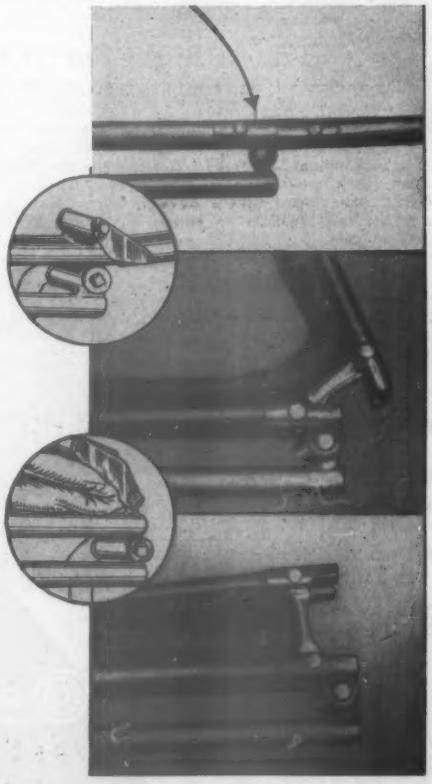
FOLD THE 77 with Pads All in Place



Model 77

Reg. U. S. Pat. Off.

(Write for FREE Literature)



NISSEN TRAMPOLINE

200 A Avenue, N. W.
Cedar Rapids, Iowa

The high school trainer could teach many subjects at this level including hygiene, first aid, safety, biology, health, etc. He has had experience in handling men and could readily and very efficiently teach the physical education classes. What better combination could be wanted? He might of necessity be a coach but he would be more productive to his school by working as an athletic trainer and teacher. It would be such a boon to high school athletics if the men who hire the faculty would give more thought to the securing of a qualified athletic trainer.

There probably is not a college trainer in the country who has not at one time or another treated local high school athletes in his training quarters. Many do it all the time. They are glad to help the high school boy who is in need of the experienced aid that these men can offer. But why should the high schools not provide their own facilities for the care of their own students? They spend a great deal of time and money on other phases of the student's education but definitely neglect to give him proper care in prevention and treatment of athletic injuries.

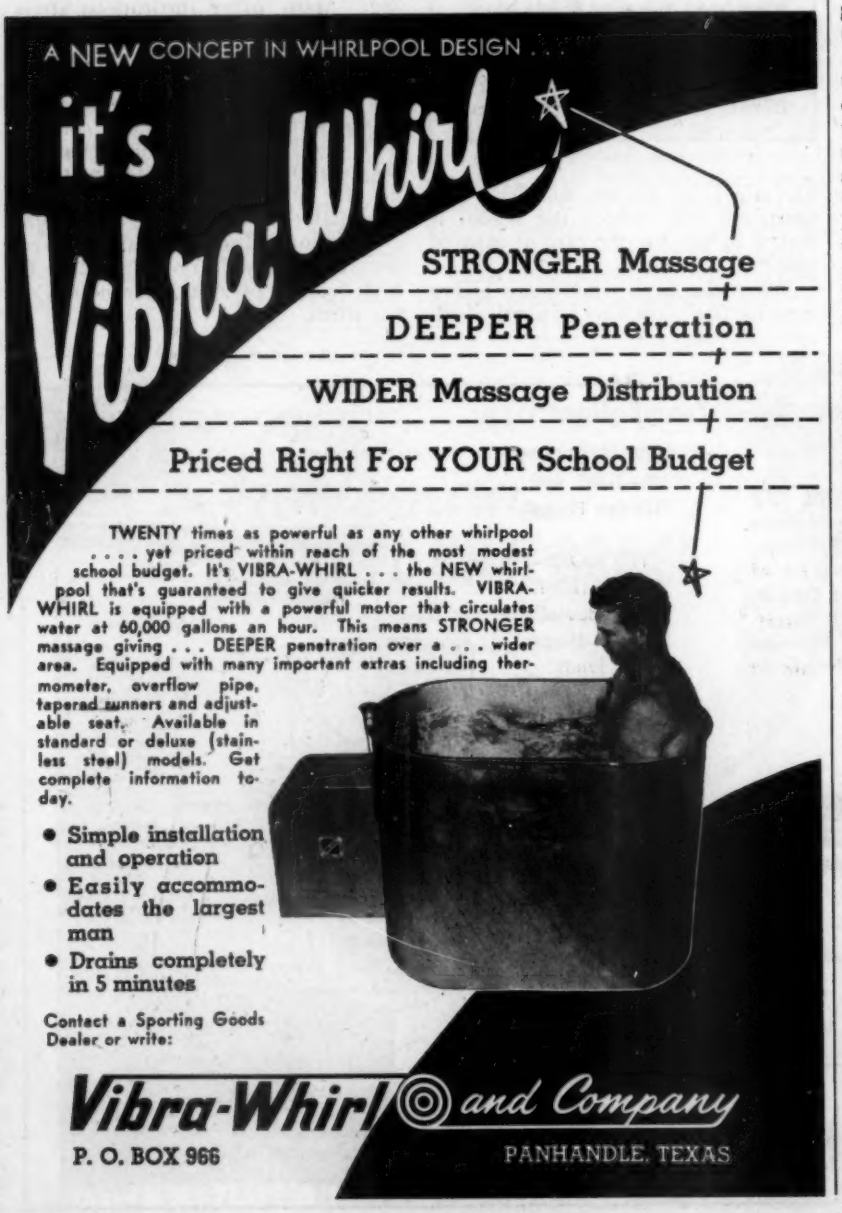
The school authorities are held liable for injuries to students in athletics, especially if negligence can be proven.

As we stated earlier, those who are responsible for hiring the high school faculty could very well secure for their staffs men who are well versed and experienced in the care of athletic injuries. How much are they going to co-operate with these men and what are they going to give them to work with? Trainers should be given the same dignity, respect, and opportunities that are accorded other members of the high school teaching organization. They should demand recognition for their efforts and be given a chance for advancement in their field of work.

High school trainers need a budget to carry on the functioning of their department just the same as do others who maintain educational organizations. There would be no point in securing a well-qualified man and then give him nothing to work with. In a few short years the investment will pay dividends. Irv Simons, trainer at Grinnell College, Grinnell, Iowa, was able to save the school $2,100 in one year on doctor bills.

Surely, in our schools of today, there is room for adequate training facilities. Even a room that is 20 feet square is large enough for a beginning. It would seem that the school could provide this amount of space for so important a venture. A project could be arranged whereby the manual arts department could paint the walls white, build partitions if necessary, and also construct two or three training tables and cover them with appropriate padding. A large cabinet for storing medicines would be the next item for the student carpenters to build. A whirlpool bath is a *must*, and one should be purchased at the start. It will pay for itself in no time. A diathermy machine is helpful but not indispensable. An infra-red lamp and trainer's field kit should be purchased at the outset. Gradually, medical and other mechanical equipment can be added as the budget will permit. They are permanent fixtures and will serve for many years.

The largest item annually after the training room is under way will be the purchase of medical supplies which, of course, include adhesive tape, gauze, ointments, liniments, elastic bandages, first aid equipment, cotton, sponge rubber, felt, and medicines which the team physician will recommend.


A NEW CONCEPT IN WHIRLPOOL DESIGN . . .
it's Vibra-Whirl
STRONGER Massage
DEEPER Penetration
WIDER Massage Distribution
Priced Right For YOUR School Budget
TWENTY times as powerful as any other whirlpool . . . . yet priced within reach of the most modest school budget. It's VIBRA-WHIRL . . . the NEW whirlpool that's guaranteed to give quicker results. VIBRA-WHIRL is equipped with a powerful motor that circulates water at 60,000 gallons an hour. This means STRONGER massage giving . . . DEEPER penetration over a . . . wider area. Equipped with many important extras including thermometer, overflow pipe, taperad runners and adjustable seat. Available in standard or deluxe (stainless steel) models. Get complete information today.
• Simple installation and operation
• Easily accommodates the largest man
• Drains completely in 5 minutes
Contact a Sporting Goods Dealer or write:
Vibra-Whirl and Company
P. O. BOX 966
PANHANDLE, TEXAS

The few high schools that are now operating athletic training rooms which are handled by a full-fledged and educated trainer are rightly proud of them and the caliber of work they are turning out. If they would take the time to check their records and count the money they have spent for the medical care of athletic injuries, then compare it with the cost of injuries since they have been running the training room, they would find, in every case, that the trainer has saved them money, at least since the initial cost has been paid. Expense is not the answer that principals or coaches should give for not having a trainer, and certainly they should not say that a trainer is not needed.

If high school authorities are pinned down and tell the truth, they will have to admit that the care given to most of their athletes is not adequate and could certainly be improved. The material set forth in this article on the high school athletic training program has shown a definite need for revision and those who are in charge of these programs would do well to look into the matter and give it much constructive and deep-seated thought. Let us hope they do!

Turf

(Continued from page 30)

Charles K. Hallowell to have the field dyed green because a heavy frost had turned it brown. The green color electrified 102,000 people who were watching the game, plus the sports writers who gave headlines across the country to that little bit of dye. We must assume that color is quite important and the greener the grass the better.

One more thing that Rip appreciates at Penn State is the way the maintenance crew makes immediate repair on the field after a game. Due to prompt repair the field is in good condition for the next game. The job is done by setting thousands of 4 inch plugs of sod of a special mixture of grasses into every damaged spot on the field. These plugs of sod bring about an immediate repair and do not kick out. They are economical in the long run because it is almost impossible to obtain seed to produce a turf that is tough enough to withstand the punishment of the cleats on the athletes' shoes. (See "The Backs Go Tearing By on What Kind of Turf?" — *Athletic Journal*, Jan. 1954)

By and large, it would seem that we have covered most of the wishes of the players. In talking to some of the boys on the great Maryland team, we learned that they like to play on a close-cut, fast, dry firm turf which lets the cleats come clean without tangling. They like a resilient cushion to take the bruises out of spills. And they want firmness for better control on sudden stops, starts, and changes of direction. No mud, thank you!

The spectators, bless them and their ducats, want color about the shade of their greenbacks. A well-grassed field is always preferable to a sea of mud, of course. Good turf, to most spectators, is green turf. That, too, is possible winter and summer, north, south, east or west. All we have to do is to grow good turf and, if it is not green for the game, a little bit of dye will give the spectators the color they want. At the same time the turf will have the springiness and the resilient cushion that is demanded by the coaches and the players.

Method of Improving Turf

Now, let us get down to business.

THE SHOOK *Athletic Trainers'* KNEE BRACE

The Brace that gives Positive Support

BALL BEARING JOINT ALLOWS NATURAL FREEDOM FOR ALL ATHLETIC MANEUVERS IN ALL SPORTS

Cutting to the inside Pivoting Kicking
Side-stepping Jumping Running

SHOOK ATHLETIC TRAINERS' KNEE BRACE IS A NATURAL AID FOR... Protecting a knee injury ... Preventing a knee injury ... Protecting post-surgery ... Protecting medial and lateral ligaments.

POSITIVE AS A REINFORCED STEEL SPLINT YET AS FLEXIBLE AS A NORMAL KNEE

▲ STRENGTH

Shown here braced leg supports entire weight of 195 lb. man. Steel splints are used to control lateral motion of knee. Shook Brace can prevent injuries BEFORE they occur.

GENUINE ALL LEATHER CALFSKIN COVERING
ELASTIC TONGUE INSERT
PLATE STEEL UPPER LEG SPLINT
NEW TELESCOPIC GROMMET TYPE EYELET
ELASTIC WEBBING EXPANSION SEGMENT
SNAPS FOR EASY ATTACHMENT OF TONGUE
SOFT CALFSKIN INNER LINING
NEW RADIAL-THRUST FREE ACTION BALL BEARING JOINT (See exploded view)
PRESSED STEEL REINFORCEMENT RIBS
FOAM RUBBER PADDING UNDER LEATHER
ELASTIC TONGUE INSERT
SOFT CALF INNER LINING
(exploded view)

MOBILITY

Wearer of brace can perform any athletic maneuver as easily as with a normal leg. Brace is comfortable to the wearer and allows freedom of action for All Athletic Sports in which knee injuries occur.

KNEE BRACE WILL FIT ANY SIZE LEG

Brace comes with one set elastic inserts which determine size. 4 standard thigh and 4 standard calf insert sizes are available. *Brace is interchangeable. Fits either right or left leg.*

FULLY PATENTED

SHOOK *Athletic Trainers'* KNEE BRACE

The SHOOK Athletic Trainers' KNEE BRACE is available *only* through the

ATHLETIC PRODUCTS COMPANY, INC. P. O. BOX 86 SOUTH BEND 24, IND.

OREGON COACHING SCHOOL

UNIVERSITY OF OREGON, EUGENE, OREGON

STAFF — **JUNE 14-19 Inclusive**

HENRY "RED" SANDERS, *University of California, Los Angeles* PETE SUSICK, *Marshfield, Oregon, High School*	FOOTBALL
ROBERT FEERICK, *Santa Clara University* BILL BORCHER, *University of Oregon*	BASKETBALL
DON KIRSCH, *University of Oregon*	BASEBALL
BILL BOWERMAN, *University of Oregon* ROBERT NEWLAND, *Medford, Oregon, High School*	TRACK
BILL HAMMER, *University of Oregon*	WRESTLING

Tuition $14.00 — May be applied toward regular summer session tuition. Dormitory rooms available—$2.00 per day. Two term hours credit. Evening movies.

For further information please write:

DEAN PAUL JACOBSON
University of Oregon, Eugene, Oregon

FREE BOOK
will help you
TEACH BETTER TENNIS

FREE

Help your students play better tennis by sending for as many of these FREE booklets as you have tennis players. Written by Vinnie Richards, outstanding figure in the tennis world—holder of 30 Championships. This booklet is based on Richards' own tournament experience—illustrated with 36 fast action shots and photos of every grip. Mail this coupon now.

CLIP COUPON—MAIL TODAY

DUNLOP TIRE & RUBBER CORP., Dept. 44 580 Fifth Ave., New York City.

Send me _____ (Quantity) FREE Dunlop tennis books: "How to Improve Your Tennis Game" by Vinnie Richards

Name _____

Address _____

City _____ Zone _____ State _____

the New **Dunlop**
Championship TENNIS BALLS

Football Coaches!!
The clinic that's different
at
FLORIDA STATE UNIV.
June 10-11-12, 1954

★

Intensive Specialization On
The Modern Passing Game,
Pass Patterns, Protection, and
Defense

FEATURING
The World's Greatest
Passers in Person Throughout the Entire Clinic

OTTO GRAHAM ..... Cleveland Browns
BOBBY LAYNE ..... Detroit Lions
SAMMY BAUGH ..... Formerly with Washington Redskins
BOBBY THOMASON ..... Philly Eagles
HARRY GILMER ..... Wash. Redskins

AND

Outstanding Receivers Headed By:
PETE PIHOS ..... Philly Eagles

DIRECTED BY TOM NUGENT AND STAFF
Registration Fee (includes room) $15.00
FOR INFORMATION WRITE:
Howard G. Danford, Dir. of Ath.
Florida State University
Tallahassee Florida

What are the factors which may be controlled in producing the *ideal turf* that meets the rigid specifications we have set up? Here are the main factors: 1. Choice of grasses. 2. Selection and use of fertilizers. 3. Cultivation to maintain good soil structure. 4. Sensible irrigation. 5. Addition of materials to modify the soil. 6. Provision for intelligent management and an adequate budget.

We certainly cannot do much about the sunlight, extremes of temperature, humidity, and other forces of nature. We can only try to take advantage of the *breaks* and be ready to do what is needed, when it is needed — this requires planning. Success will come only when all the controllable factors are built into a sensibly planned program. Once the program is set up, agreed to by all concerned, and is in operation, very few changes should be permitted and then only after careful deliberation.

Types of Grasses

Let us talk about grasses for a few moments. There are two truly great grasses for athletic fields — blue grass for the north and Bermuda grass for the south. We can stop right here and discuss the improved types of these two grasses. We will not have to look much farther to find the grass that will give us the kind of turf we are talking about.

Merion blue grass is an improved Kentucky blue grass. It is available and it has been used on football fields with great success. More than common Kentucky blue grass, it gives that cushiony feeling. It has more rhizomes in the soil, underground stems that is, to provide a firm cushion for fewer injuries. It will not do to try to grow Merion blue grass on a field that is in play. That is not being done very successfully. Most practical men, including scientists, agree that it is far better to grow a solid sod of Merion blue grass in a special nursery with special care. The mature sod can then be transferred to the playing field in the form of 4 inch plugs of sod. This has been done very successfully on Beaver Field at Penn State and on other fields. This method has been practiced by golf course superintendents for many years.

In the south, Bermuda grass provides a turf that is second to none, if it is properly managed. Until a few years ago, only common cotton patch Bermuda was available for playing fields. Today, through research and plant breeding methods, new improved, vigorous types of Bermuda

grass are available. These can be developed in sod nurseries for transfer to the playing field. Among these is Tifton-57 Bermuda grass, now known as Tiflawn, developed at Tifton, Georgia. Another is T-47, a strain that we found growing in Texas, which apparently has the deep-rooting, wear-resisting qualities that we like to see on athletic field turf. U-3 Bermuda is a relatively fine-bladed type of grass that is extremely winter-hardy, and is being used on many athletic fields north of the area where we usually expect to find Bermuda grass. Since these grasses are available and since 4 inch sod pluggers are available, there seems to be little excuse for any athletic field avoiding the use of these grasses for the improvement of the field. (Editor's Note — Next month an entire article will be devoted to turf for the Southwest section of the country)

Fertilizing and Cultivating

The selection and use of fertilizers is quite important in maintaining any grass, particularly the improved grasses. It is difficult to generalize on fertilizers that are acceptable for both Bermuda grass and blue grass. However, for growing grass, the emphasis is always on nitrogen. This very nearly dictates that a high nitrogen fertilizer should be used for the greater part of the time. Complete fertilizers containing nitrogen, phosphorus, and potash are needed both on Bermuda and blue grass. These generally are used in the early spring and in the late fall. Straight nitrogen fertilizers or high nitrogen mixtures are needed during the main part of the growing season.

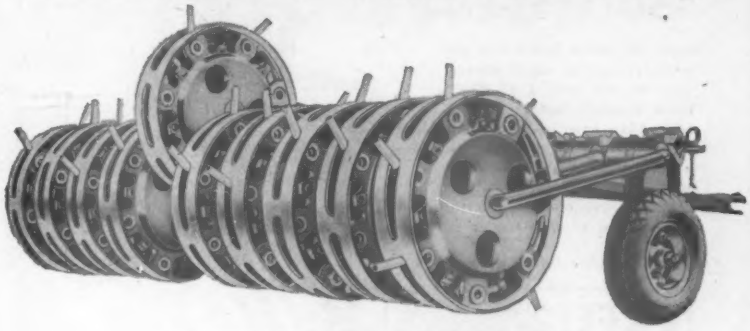
Most agronomists and groundskeepers will agree that a sensible rate of application of fertilizer is one which will supply one pound of nitrogen to 1000 square feet at each application. This is a good rule of thumb and is a safe rate of application under almost every condition. In order to provide more nitrogen, it is necessary only to make another application as the grass needs it. On some fields there will be four, five or even more applications of fertilizer during the season, each application supplying one pound of nitrogen to 1000 square feet.

Equally important as the selection and frequency of use of fertilizers is the practice of getting the major part of the fertilizer down into the root zone. Experiments at the Pennsylvania State University, over a period of years, prove conclusively that the compacted zone in the surface of the

SOILAIRE

TRACTORAIRE

Restores Grass on Football Fields Quickly!



USED BY THESE LEADING SCHOOLS

NOTRE DAME	ARMY	NAVY	MINNESOTA
YALE	TEMPLE	SYRACUSE	TENNESSEE
ILLINOIS	NEBRASKA	IOWA	BRIGHAM YOUNG
IDAHO	OREGON	STANFORD	TORONTO
ROSE BOWL	COLISEUM L. A.	WYOMING	RHODE ISLAND

Combined with seed and fertilizer, the Tractoraire will restore grass quickly and save expensive resodding.

Gets air, moisture and nutrients down to the roots. The modern way of growing grass mechanically.

SOILAIRE INDUSTRIES

Minneapolis 3, Minnesota

Used By Over 1000 Institutions

FOR CHAMPIONSHIP TURF, IT'S Scotts

Scotts TURF PRODUCTS

Notre Dame *(illustrated)*, Ohio State, Pittsburgh, Northwestern, Indiana, Columbia, and hundreds of other famous athletic fields the country over are outstanding examples of Scotts turf perfection. It's thick, healthy, deep-rooted turf which can really take punishment . . . adds spectator glamour, too! Plan now to convert your grass areas to Scotts. Why not write at once for the recommendations of our Turf specialists. No obligation, of course.

O. M. Scott & SONS CO., Marysville, Ohio—also Palo Alto, California

New!!
SAND KNIT
FOOTBALL JERSEYS
As Seen on TV in the Rose Bowl Game!
Colorful! Attractive!
Style AG Jersey styled with self material insert at top of sleeves. Can be had with 3/4" Ribett braid through center of insert for added color. Outstanding design in school color combinations that have met with instant success everywhere. Jerseys are available in a complete choice of fabrics.
Write for Complete Information
FREE! Newest 1954 Football Clothing Catalog available on request.

SAND KNITTING MILLS CORP.
BERLIN, WISCONSIN

Coaches, Athletic Directors
..AT LAST.....
a booklet on the
ORGANIZATION AND ADMINISTRATION OF THE HIGH SCHOOL VARSITY CLUB.
This booklet covers . . . .
1. The Club School Service Program
2. The Club Constitution
3. The Club Formal and Informal Initiation Program
4. Club Financial Program
5. Club Organization
6. Club Membership Requirements
..A MUST.....
for every coach and club adviser.
If a Varsity Club (Letter Men's Club, Boys' Athletic Assoc.) does not exist in your school ORGANIZE ONE NOW!
If a club does exist MAKE IT A BETTER ONE
A strong, functioning Varsity Club is of service to the athlete, coach, department, and school
Send $1.00 check or money order
ATHLETIC ENTERPRISES
228 N. Warren St. Big Rapids, Mich.

22nd Annual
TEXAS
COACHING SCHOOL
Sponsored by the Texas High School Coaches Association

DALLAS, TEXAS — AUG. 9-14
—FOOTBALL
"RED" SANDERS ..... U.C.L.A.
BOBBY DODD ..... Georgia Tech
FRANK BROYLES ..... Georgia Tech
RAY GRAVES ..... Georgia Tech
JESS NEELY ..... Rice
JOE DAVIS ..... Rice
CECIL GRIGG ..... Rice
—BASKETBALL
EDDIE HICKEY ..... St. Louis
"DUDEY" MOORE ..... Duquesne
—TRACK
FRANK ANDERSON ..... Texas A. & M.
—BASEBALL
ALEX HOOKS ..... S.M.U.
—TRAINING
WAYNE RUDY ..... S.M.U.
* ALL-STAR FOOTBALL GAME *
Cotton Bowl, Aug. 14
* ALL-STAR BASKETBALL GAME *
Dallas H. S., Aug. 13
For information write:
L. W. McCONACHIE
2901 Copper St. El Paso, Texas

soil, particularly on an athletic field, largely prevents free movement of air, water, and fertilizer into the soil. The obvious answer then is to use cultivating equipment frequently to correct this obvious fault. Ted Glowa, of the United States Military Academy, made the statement recently that you can use cultivating equipment just about as often as you wish. The immediate effect is to get the fertilizer into the root zone and to admit water and air. We know from experience that the increased growth of roots helps to produce that cushiony springy feeling which is the delight of both coaches and players.

We have pretty well covered the subject of cultivation to maintain good soil structure. The frequent use of cultivating equipment redistributes the soil in the surface four to five inches. It brings soil to the surface to dry, to become crumbling and aggregated, and to be redistributed on the surface to provide a smooth, firm playing surface. As we said before, the cavities in the soil naturally fill with roots because the water and fertilizer which accumulate in the cavities attract the roots. It gives them the moisture and nutrients that they need to produce a sturdy grass plant which will withstand heavy use.

Irrigation

Irrigation can be sensible or senseless. We have seen both. If it is senseless, then all the work and expense of buying improved grasses, using plenty of fertilizer, and cultivating the soil will go for naught. In the presence of excess water grasses simply cannot grow and weeds will take their place. We have seen this happen on far too many fields. The coaches and the players want a field that is firm, fast, and dry. This means only occasional use of water. It should be a good thorough, deep soaking with long intervals of two, three or four weeks until another irrigation period takes place. What about the rain that falls? That is something we cannot control, except to provide adequate surface drainage to take off the excess water. Cultivation of the soil greatly helps to absorb water and to loosen the soil so that better internal drainage is achieved. The stronger growth of grass, through cultivation, helps to dry out the soil by increasing transpiration.

Soil Amendments

Occasionally the soil is so dense and full of clay that we may want to

add sand or humus and work it into the turf in order to provide a somewhat more spongy, resilient condition. Until the day of cultivating equipment, it was useless to apply these materials on the surface because all they did was to create a layer, which completely prevented us from achieving the kind of turf we wanted. Now, if and when it seems sensible to apply sand or humus to the surface of a playing field, it is possible to incorporate it into the soil to a depth of several inches by frequent use of cultivating equipment. However, the expense of adding these materials cannot always be justified. With good grasses, adequate fertilization, frequent cultivation, and sensible irrigation, the grasses themselves can produce enough roots to provide organic matter necessary to develop that cushiony feel.

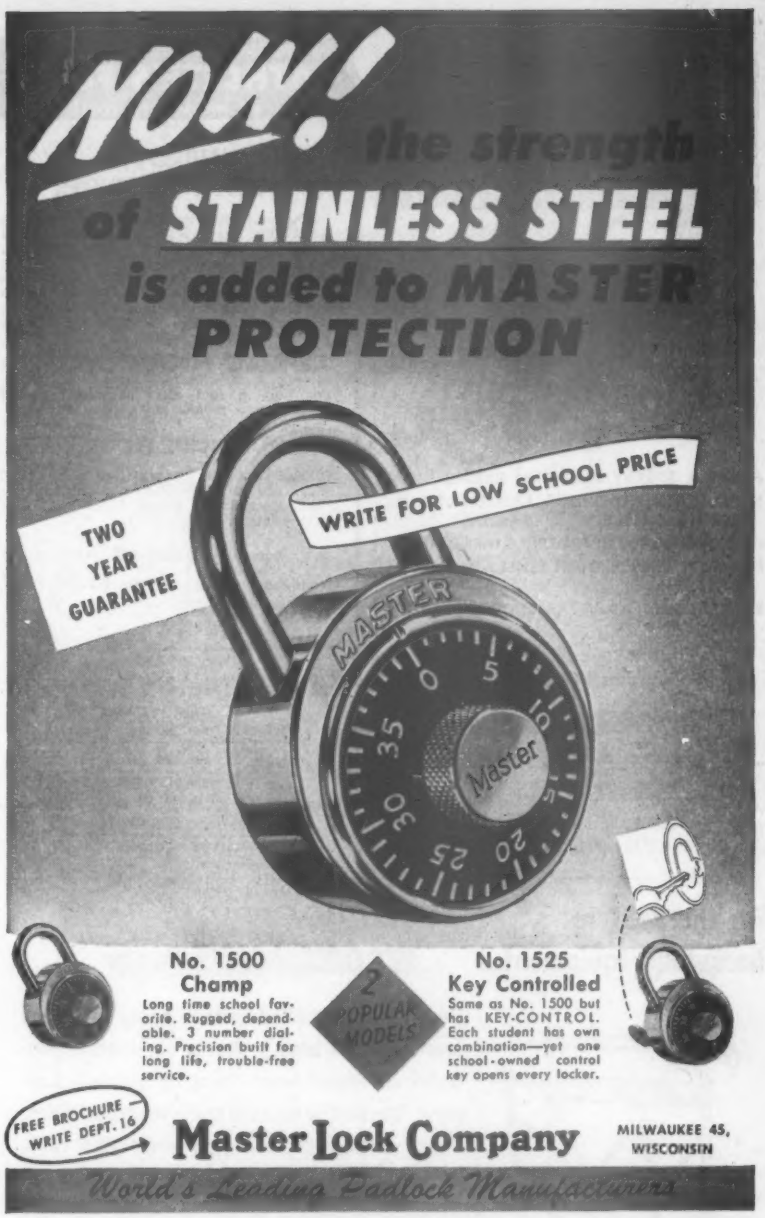
Height of Cut

The foregoing pretty well covers the fundamentals for providing the right conditions for turf growth. We would like to put in a word about cutting the field. As mentioned before, the players like a fast, close-cut field, but we have not said anything specific about the height of cut. The best height of cut seems to be between three-quarters of an inch and two inches, depending upon the season and upon the type of grass. There is no standard figure for height of cut. Height of cut should be adjusted in accordance with the judgment of the man in charge of the field, and it will depend upon conditions existing at that time.

Too often a field is turned over to someone who knows little or nothing about grasses, fertilizers, and other controllable factors of growing grass. Provision, therefore, for intelligent management, backed by an adequate budget, is simply an insurance policy which any good business man would take out immediately when he acquires an expensive piece of equipment.

Athletic Field Tours

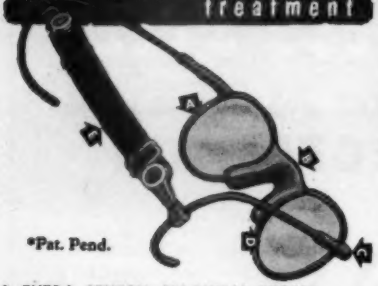
During the past three years, a group of agronomists and practical men have made visits to a number of athletic fields on the Eastern seaboard. Reports of these trips have not been published for general consumption, but we would like to mention a few of the findings of this group. The group included agronomists from the Agricultural Experiment Stations, county agents, athletic field superintendents, and coaches.


NOW! the strength of STAINLESS STEEL is added to MASTER PROTECTION
TWO YEAR GUARANTEE
WRITE FOR LOW SCHOOL PRICE
MASTER
Master
No. 1500 Champ
Long time school favorite. Rugged, dependable. 3 number dialing. Precision built for long life, trouble-free service.
2 POPULAR MODELS
No. 1525 Key Controlled
Same as No. 1500 but has KEY-CONTROL. Each student has own combination—yet one school-owned control key opens every locker.
FREE BROCHURE — WRITE DEPT. 16
Master Lock Company
MILWAUKEE 45, WISCONSIN
World's Leading Padlock Manufacturers

TROPHIES for CHAMPIONS
Quality Awards For Top Performers
TROPHIES • PLAQUES • CUPS
MEDALS • CHARMS • AWARD ITEMS
See the TROPHIES FOR CHAMPIONS Catalog at your trophy dealer.
F. H. NOBLE & COMPANY
559 W. 59th ST. Manufacturers CHICAGO 21, ILL.

The completely new

ALL AMERICAN*
athletic glasses
designed for rough treatment



*Pat. Pend.

A. EXTRA STURDY ALL-METAL FRAME
B. "CUSHION FIT" SHOCK ABSORBENT RUBBER NOSE PIECE
C. ENDS COVERED TO PROTECT OTHER PLAYERS
D. SAFETY PRESCRIPTION LENSES WITH HIGH BASE CURVE
E. EXPANSIBLE, ADJUSTABLE "GLASS GARD"* HEADBAND

• Consult your eye doctor for further information

Benson OPTICAL COMPANY
Executive Offices Minneapolis, Minn.
Since 1913

COMPLETE LABORATORIES IN PRINCIPAL UPPER MIDWEST CITIES

COMPLETE PROTECTION AGAINST
ATHLETE'S FOOT
at moderate cost!

IMPROVED ALTA-CO POWDER

Refinements and improvements now make ALTA-CO more quickly soluble, more agreeable generally and better to handle. Dissolved economically in water for the all-important foot bath, ALTA-CO kills in less than a minute all different species of fungi commonly found in Athlete's Foot. Non-irritating; harmless to towels.

ALTA-CO FOOT POWDER

For dusting feet after shower or other exposure to moisture.

H.D. FUNGICIDE FLOOR WASH

Diluted 1 to 300 in water, this powerful wash provides protection against Athlete's Foot on surfaces where fungi are commonly found.

Ask your DOLGE SERVICE MAN about money-saving offer on the DOLGE FOOT TUB.

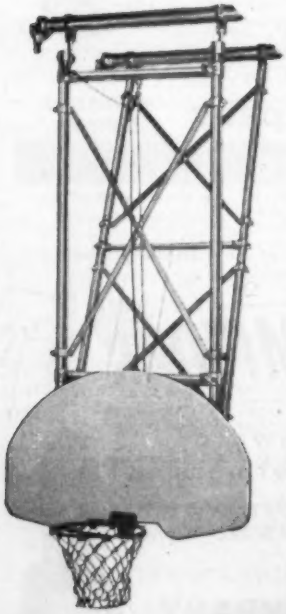
FOR FREE SANITARY SURVEY OF YOUR PREMISES SEE YOUR DOLGE SERVICE MAN

dependable DOLGE

WESTPORT, CONNECTICUT

For the BEST in Basketball Equipment

THE RECREATION LINE



Depend upon RECREATION to equip basketball courts with the latest improved backboards. Illustrated, our newest design Swing-Up type, fully automatic, operated by enclosed safety worm gear winch. Choice of fan-shaped metal, plywood or glass bank, or rectangular bank in plywood or glass. Line also includes wall-braced, suspended braced, wall type swing-up, and portable frames and backboards. Standard on all is 6" extension of bank from supporting pipes, making action of ball clearly visible. Pipes are hot galvanized steel with malleable iron or brass fittings. Our engineering department is at your service to provide the installation you need. Send for our new BASKETBALL catalog today!

RECREATION EQUIPMENT CORP.
Dept. AJ4, 724 West Eighth St.
Anderson, Indiana
Please send me your FREE CATALOG:
☐ BASKETBALL
☐ PLAYGROUND & SWIMMING POOL

Name.....
Address.....
City.....State.....

From observations made over a period of three years, we believe the following factors play the most important part in the success or failure of the turf grass areas that were inspected. Water management, height of cut, soil aeration, choice of grasses, fertilizer practices, and weed control are the important factors. Everyone agreed that a sod nursery is necessary to the proper management of athletic field turf. Where there is not sufficient area to develop a sod nursery outside of the field, it is always possible to use the side lines and the end zones as a sod nursery area. At Beaver Field in February we noticed that, whereas the center of the field had been rather severely injured by heavy play, the end zones were practically perfect. They were unmarred by any blemish and represented an almost ideal sod nursery area for the repair of the center part of the field.

One of the greatest fallacies observed during the tours was the use of water. Some coaches insisted on tremendous amounts of water *in order to keep the ground soft.* The excesses of water did keep the ground reasonably soft but it prevented the development of a grassy turf and left the field covered with a thin growth of weeds. The best turf was that which received virtually no water except natural rainfall, but which had been cultivated frequently and fertilized heavily. This was true whether the fields were planted with blue grass or Bermuda grass. It is particularly interesting to quote one of the statements heard at a group discussion. "Aerification is an important management practice in turf management. It has become a regular practice for most athletic fields. However, it is of utmost importance that it be used in connection with other good management practices such as fertilization and water usage for best results."

Another significant statement was to the effect that "A good fertilization program will, to a large extent, reduce the need for applications of water. The fields which received the most artificial water were in the worst shape. More good turf was ruined and weed infestation was nearly 100 per cent on the fields that remained continually saturated." A further quotation is as follows: "Good turf, well-managed, will provide the soft, cushiony playing surface that athletes desire. Excessive water will not do the job. It is advisable to apply water only under conditions of unusual drought."

Obviously, much more information is needed through articles in *Athletic Journal* and other magazines, and

even in newspapers, to bring to light the available information on how to grow grass on athletic fields. Certainly more research is needed, but in the meantime a great deal of information exists. It needs to be brought to the attention of the groundskeepers, coaches, and others in such a form that it can be utilized easily by those in charge. Slowly, the people most interested in athletic fields are beginning to band together into groups and associations for the purpose of attracting speakers who can bring to them the needed information. Turf grass conference groups in several states are encouraging the people in athletic field work to attend the conferences and to have their own sessions where their particular problems can be discussed. Charles K. Hallowell and H. O. Wilcox, county agents in Pennsylvania, have for some time treated athletic field turf as the most important turf grass area. Other progressive county agents in the United States are beginning to recognize this forgotten field.

Summary

In summing up this discussion, we would like to cite a few of the statements made by Harry Stiteler in 1951 at the Turf Grass Conference at Texas A. & M. College. He stated that he had more injuries in football from the field itself than from body contact during the game. He, too, wanted turf that was soft, spongy, and bouncy, one that was close-cut for speed, firm for good footing, and green for player and spectator appeal. However, he said, color was fine but the first thing he wanted to do was to take care of the boys and wanted the field to be in a safe condition.

Now that we have set up these specifications, let us consider what we should do to accomplish the objective. 1. To obtain a firm turf, we use a roller. 2. To achieve a springy, yielding turf, we cultivate. 3. To grow good grass plant the right kind of grass. 4. To obtain a fast turf, we cut closely. 5. To get a green turf, we use fertilizer or dye, depending upon the circumstances. 6. The principal need for seed in our new plan of operation is for some quick-growing grass to fill in between the plugs on the field. Also needed is a limited amount of the right kind of seed to build the sod nursery with which to repair the field.

There is much good information available about athletic field turf. At present the information is being taken to the people in charge of athletic

Dear Coach:

You can't operate your home without bread, salt, sugar, eggs and coffee. Neither can you conduct an efficient athletic program without the tools of the trade.

CRAMER PRODUCTS are just as much a part of your program as the football, the basketball, baseball or baton. You reach for them every day - just as you do the salts.

CRAMER PRODUCTS are as standard as Scotch Tape, Kleenex, Quaker Oats or Coca Cola. Their shipment-after-shipment uniformity insures satisfactory results.

Don't let that favorite sporting goods salesman get away without an order for CRAMER PRODUCTS, the next time he calls on you.

Cramers of Gardner, Kansas

PUBLISHER "THE FIRST AIDER"

EYE GLASS HOLDER

FOR BASEBALL - GOLF TENNIS - TRACK

RETAILS FOR $1.00

(SLIGHTLY HIGHER IN CANADA)

JOBBERS-DEALERS-WRITE

SERON MFG. CO.

BARBER BLDG.

JOLIET, ILL.

PAT. PEND.-U.S.A.-CANADA

● Baseball's newest hit...
The Pi-mac all-aluminum
PORTABLE BAT RACK

SIZE OPEN 20¼ x 30 x 24½
SIZE FOLDED 20½ x 30 x 9

•EASY TO CARRY •DURABLE
•RUST PROOF •PORTABLE
•NON-CORROSIVE

The smallest player in any league can carry this lightweight 14½ pound bat rack with finger tip control operations. It protects your bats and offers safety for your players

for information write:
PI-MAC SPORTS EQUIPMENT CO.
180 Oakview Ave. Farmingdale, L. I., New York

SPLIT-SECOND TIMING

BASKETBALL
Naden ELECTRIC
SCOREBOARDS

Illustration shows new N595 — one of the many Naden models designed, engineered, tested, proved and guaranteed to give "top" performance. Ask for Catalog No. 22 — Football; No. 23 — Basketball; No. 25 — Baseball.

NADEN AND SONS WEBSTER CITY, IOWA

fields in a very limited way. When the people who are taking care of athletic field turf begin to get together in groups and to form associations, they will be able to attract an all-star team of turf grass specialists to help them solve their problems. Many turf grass scientists are willing to give of their knowledge to educate people to produce the kind of athletic field turf that reduces injuries to a minimum. That is the kind of turf the coaches want because, after all, injuries do not win games.

NEW BOOKS

Sport and Health. *This is a collection of fifty lectures from the International Conference on Sport and Health held in Oslo, Norway in connection with the Olympic Winter Games in* 1952. *Copies of the booklet may be secured from Dr. Otto Johansen, State Office for Sports and Youth, The Royal Norwegian Ministry of Education, Oslo, Norway. Free.*

The following review was prepared for us by Dr. C. H. McCloy of the University of Iowa. "Among the departments of papers given in this remarkable publication are several on sport and education, a number on the physiology of sport, ten on sport injuries, three on the medical control of athletes, and a number that are of a rather miscellaneous type, but all of them good."

Fitness and Injury in Sports, *by S. S. Knight. Published by D. Van Nostrand Co., New York 3, N. Y. One hundred and eighty-nine pages. Price* $4.25.

The book is authored by a man well known in British training, athletic, and medical circles. Outstanding British athletes are pictured in action with accompanying drawings to illustrate the muscles involved in the particular activity. Among the items discussed are the problem of fatigue in exercise; the prevention of injury; the treatment of athletic injuries by physical means; strapping and padding technique in injury; and food and the athlete.

Eddie O'Donnell, supervisor of training at Yale said: "At last we have found a book that should be in every athletic training department."

Football Offense

(Continued from page 24)

play, sent in from Wyoming. The ball is snapped to the short back who fakes to the tailback and gives to the other short back who fakes an end run, and passes to the wingback down and out.

The play shown in Diagram 134 is similar to the play shown in the preceding diagrams. In this play, however, the upback carries the ball to the other upback and the tailback blocks on the end. Also, the end is split wider in this play. Both ends are downfield for passes along with the wingback.

Our concluding play in the annual review of high school football offense is run from the short punt formation and is shown in Diagram 135. The ball is snapped to the tailback who drives forward, handing off to the upback on the left side. The play sets up with laterals to the other two trailing backs. The defensive tackle and end are slowed up by blocks from the backs on the right side.

28th Annual
UTAH STATE
Coaching School
Logan, Utah June 1 - 5
★
JIM TATUM
University of Maryland, Football
"TIPPY" DYE
University of Washington, Basketball
also Baseball and Training courses
TUITION—$10
For reservations and information, write:
JOHN RONING, Athletic Director
Utah State College, Logan, Utah

VYLAN COVERED
WASHABLE, SANITARY, DUSTPROOF, TOUGH

"You may as well have the best . . . Jim Flex mats give complete protection", says Newt Loken, U. of Mich. coach. Vylan Mats have duck texture, appearance and "feel". Washable, sanitary, dustproof. Tufted every 6", Genuine Jim Flex felt filling. Write for circular of complete mat line.

National SPORTS EQUIP. COMPANY
302 N. MARQUETTE STREET
FOND DU LAC, WISCONSIN

Interscholastic

(Continued from page 34)

ing two-fifths of the high schools without any football teams represent potential future growth for both the six-man and the eleven-man games. Six-man football is essentially a small school sport and is used in few larger schools except as an intramural sport.

Basketball is by far the most popular high school sport. James Naismith's game is approaching 100 per cent participation. The percentage of high schools with interscholastic teams increased from 93 in 1937 to 97 in 1953. The number of states reporting all member schools of the state association playing basketball increased from 9 in 1937 to 20 in 1953.

Baseball has shown considerable growth in the postwar period. In 1937 the number of high schools playing was 6,712 (36 per cent) and in 1953, 12,261 (65 per cent). New York State, where Abner Doubleday is said to have originated the game, led the other states with 93 per cent school participation recorded in 1937 and increased its percentage to 99 in 1953. However, three states, New Jersey, Rhode Island, and Virginia, in 1953 reported all member schools playing baseball. Baseball which ranked below eleven-man football and track in 1937 was second only to basketball in 1953.

STEPHEN EPLER is best known as the founder of six-man football and is at present Chairman of the National Six-Man Rules Commission and Co-Editor of the Six-Man Football Rules Book. In addition to his duties as Director of the Day Program of the Portland State Extension Center, he serves as President of the Oregon Collegiate Athletic Conference.

Track and field was found in 44 per cent of the schools in 1937 and in 55 per cent in 1953. In 1953 Texas reported that all its member schools had track teams. In 1937 better than half of the schools in 22 states participated in track and field and in 1953, 29 states had better than 50 per cent participation in the same sport.

The gains in interscholastic sports from 1937 to 1953 have significant meaning for coaches, manufacturers and distributors of athletic goods, school administrators, board members, and others engaged in planning and guiding interscholastic athletics.

Important McGraw-Hill Books

INTERSCHOLASTIC ATHLETICS

By GEORGE E. SHEPARD and R. E. JAMERSON, University of North Carolina. *McGraw-Hill Series in Health Education, Physical Education, and Recreation.* 276 pages, $4.00.

An exhaustive text on the organization and conduct of high school interscholastic athletics. It covers local, state, and national problems, facilities, equipment, finance, and safety. There are also chapters on girls' interscholastic athletics, intramural sports, and junior high schools.

PROFESSIONAL PREPARATION IN HEALTH, PHYSICAL EDUCATION, AND RECREATION

By RAYMOND A. SNYDER, University of California; and HARRY A. SCOTT, Teachers College, Columbia University. *McGraw-Hill Series in Health Education, Physical Education, and Recreation.* 421 pages, $5.50.

Here is the only complete text published on the subject in many years. The work has a dual purpose: to help students improve their understanding of the whole field of teacher education; and to apply modern principles and practices of teacher education to the undergraduate, graduate, and in-service preparation of specialists in the fields of health education, physical education and recreation.

BODY DYNAMICS

By ELEANOR METHENY, University of Southern California. *McGraw-Hill Series in Health Education, Physical Education, and Recreation.* 225 pages, $4.00

An elementary college text on posture and mechanical efficiency of the human body. The book is practical and somewhat inspirational, being suited to many orientation courses that cover deportment and conditioning as essentials of grooming and personal development.

THE CAMP COUNSELOR

By R. A. BENSON, New York Medical College; and J. A. GOLDBERG, New York Tuberculosis and Health Association. *McGraw-Hill Series in Health Education, Physical Education, and Recreation.* 137 pages. $4.75

A comprehensive text and guide for all concerned with youth camping — instructors, students, and workers in the field — designed to indoctrinate camp counselors and others who come into contact with children in camps, regarding their physical, mental, emotional, and social needs. The book covers all phases of child development and problems that arise in camps.

McGraw-Hill Book Company, Inc.

330 West 42nd Street — New York 36, N. Y.

Send for copies on approval

Use Our Complete Line — Baseball and Softball Bats

JOE ENGEL LAMINATED BATS

(With ALL-HICKORY HANDLES)

Have Been OFFICIALLY APPROVED

By Major Leagues and All Professional Baseball for 1954!

WILL NOT CHIP! MORE ECONOMICAL! STRONGER BAT!

JOE ENGEL BAT COMPANY CHATTANOOGA TENNESSEE

RECREATION FOR COMMUNITY LIVING

An informative booklet by top authorities in the field of recreation. Sets up guiding principles, practices and policies for every phase of total community recreation.

ESSENTIALS FOR DEVELOPING COMMUNITY RECREATION

A valuable guide containing the "10-Point Essentials of a Public Recreation System" adopted by the Federal Security Agency and developed further by The Athletic Institute—to aid in organizing community recreation.

Remember, more people playing more games means a happier, healthier, stronger America

For full details on the above material, write to: The Athletic Institute, 209 S. State St., Chicago 4, Ill.

PLAYTOWN U. S. A.

A fast-moving, well dramatized film that will enable you to show your community leaders how to organize community-wide, all-age, year-round recreational programs.

$1,000 FOR RECREATION

With this film, you demonstrate to community sponsor groups that recreation is a basic human need and is as much a public responsibility as education, health and welfare.

LEADERS FOR LEISURE

Here's a dynamic film that stresses the importance and need for professionally trained leaders to insure the success of any community program.

PLAYTOWN U. S. A.

$1,000 FOR REC-REATION

LEADERS FOR LEISURE

MEMBER ATHLETIC INSTITUTE KeepFit FITNESS THROUGH ATHLETICS AND RECREATION

This seal, pridemark of the Athletic Institute, identifies its members.

THE Athletic Institute

A NON-PROFIT ORGANIZATION DEVOTED TO THE ADVANCEMENT OF ATHLETICS, RECREATION AND PHYSICAL EDUCATION

School Athletics

(Continued from page 16)

the state tournaments post-season games. These games are regularly planned for in arranging schedules because in most states a school is prohibited from further competition after being eliminated in the state tournament.

The Commission points out a number of practices which they consider evil in regard to state tournaments, and then they advise the elimination of tournaments. In the first place they have unwisely condemned all tournaments in all states because of the supposed evil practices in some. A limited number of school systems are known to be riddled with graft where the handout under the table is necessary for a business man to receive an order or a teacher a deserved promotion. The sensible approach to such a problem is to clean up the mess and not to use negative thinking. In the negative approach it is felt that the evils will always be present and that it is impossible to do anything about them; therefore, the only way to rid ourselves of the problem is to rid ourselves of education.

On page 56 the report states: "Thus, interscholastic athletics may be thought of as serving the needs of the athletically gifted in somewhat the same way that debating and editorial writing for the school newspaper serve the needs of other gifted students."

With that thought in mind, we wonder if the Educational Policies Commission has given any thought to the abolishment of state and county declamatory and debating contests or to band contests? There is certainly a great deal of emotional and physical exertion in a grueling state band contest but it probably is no more wearing on a gifted musician than a state tournament is on a gifted athlete.

The Commission suggests that the necessity of gate receipts is the reason athletic contests are played under adverse weather conditions. In this regard the Commission clearly indicates lack of knowledge of the amount of preparation which goes into any athletic contest. Merely cancelling the officials and scheduling them again for a future date would require a tremendous amount of correspondence. Would they have the game cancelled entirely or would it be played at a later date? If the latter is the case, there is the situation of two games being played in one week. For a game such as football most physical educators agree this would be a very unwise procedure. We sincerely doubt that gate receipts are the sole reason for games being played under adverse weather conditions and we question whether the elimination of gate receipts would help the situation.

COACHES READY REFERENCE SERVICE COUPON

APRIL, 1954

As a service to our readers and for their convenience we list here the advertisers appearing in this issue. *Many* of the concerns offer free booklets and coaching aids. Simply cut along the perforated rule and mail to:

Service Department, ATHLETIC JOURNAL
6856 Glenwood, Chicago 26, Ill.

COMPLETE LINE

MacGregor Co., The, 19, ☐ Free Catalog
Rawlings Sporting Goods Co., Cover 2, ☐ Catalog

SHOES

Riddell, Inc., John T., 23, ☐ Free booklet, "The Story of Quality Shoe Construction"

CLOTHING & LETTERING

Hand Knit Hosiery Co., 24, ☐ Information "Wigwam" socks
Sand Knitting Mills Corp., 56, ☐ Free 1954 football clothing catalog

TRAINERS SUPPLIES

Athletic Products Co., 53, ☐ Information "Shook" athletic trainers' knee brace
Becton Dickinson & Co., 39, ☐ Information "Ace" bandages
Benson Optical Co., 58, ☐ Information "All American" athletic glasses
Bike Web Co., 31, ☐ Free 1954 "Coaches and Trainers Handbook"
Birtcher Corp., The, 25, ☐ Free brochure on the Vibra-Bath and "Handbook on Hydromassage"
Cramers, 59, ☐ Add name to "The First Aider" list
Dolge Co., C. B., 58, ☐ Free sanitary survey of premises
Horn & Bro., Wm. H., 50, ☐ Information hinged knee braces, anklets, and knee caps
Johnson & Johnson, 17, ☐ Information "Faultless" supporters
Seamless Rubber Co., Cover 3, see listing under "Books"
Seron Mfg. Co., 59, ☐ Information "Glass Gard" eyeglass holder
Vibra-Whirl & Co., 52, ☐ Information

GYMNASIUM & FIELD EQUIPMENT

American Playground Device Co., 4, ☐ Free literature
Fair Play Mfg. Co., 40, ☐ Free booklet "What's the Score"
Fenner-Hamilton Co., 40, ☐ Free literature
Hussey Mfg. Co., 41, ☐ Free catalogs
Leavitt Bleacher Co., 30, ☐ Complete information
Master Lock Co., 57, ☐ Free brochure
Medart Products, Inc., Fred, 43, ☐ Information Medart gym apparatus
Naden & Sons, 60, ☐ Football Catalog; ☐ Basketball Catalog; ☐ Baseball Catalog
National Sports Equipment Co., 60, ☐ Free circular
Nissen Trampoline Co., 51, ☐ Free literature
Porter Corp., J. E., 3, ☐ Information
Recreation Equipment Corp., 58, ☐ Basketball Catalog; ☐ Playground & Swimming Pool Catalog

BASEBALL EQUIPMENT

Engel Bat Co., Joe, 61, ☐ Information baseball and softball bats
Hillerich & Bradsby Co., 47, ☐ Free color catalog Louisville Slugger Bats
Lannom Mfg. Co., The, 27, ☐ Information "Worth" baseballs
Nocona Leather Goods Co., 21, ☐ Free catalog
Pi-Mac Sports Equipment Co., 60, ☐ Information portable bat rack

RUBBER BALLS

Seamless Rubber Co., Cover 3, ☐ Catalog

LIGHTING EQUIPMENT

Crouse-Hinds Co., 37, ☐ Free "Sports Lighting Bulletin"

RECONDITIONERS

Ivory System, Cover 4, ☐ Add name to "Observer" list

FLOOR FINISHES

Hillyard Chemical Co., 1, ☐ Information Hillyard championship floors

TURF PRODUCTS

Lawn Grass Development Co., 29, ☐ Information U-3 Bermudagrass
Scott & Sons Co., O. M., 55, ☐ Information

Soilaire Industries, 55, ☐ Information on "Tractoraire"
Summit Hall Turf-Farm, 5 ☐ Information
West Point Products Corp., 30, ☐ Information on the "Aerifier"

NETS

Linen Thread Co., Inc., 35, ☐ Information "Gold Medal" nets

AWARDS & TROPHIES

Noble & Co., Inc., F. H., 57, ☐ Free catalog "Trophies for Champions"

TENNIS EQUIPMENT

Dunlop Tire & Rubber Corp., 54, ☐ Free booklet "How to Improve Your Tennis Game," Vinnie Richards

FILMS

Athletic Institute, The, 62, ☐ Full details on films "Playtown U.S.A.," "$1,000 for Recreation," and "Leaders for Leisure"

GOLF EQUIPMENT

Hillerich & Bradsby Co., 47, ☐ Free color catalog Louisville Grand Slam Golf Clubs

ATHLETIC EVENTS

Drake Relays, 32, 33, ☐ Information

COACHING SCHOOLS

Colorado, University of, Coaching School, 40, ☐ Information
Florida State Coaching School, 54, ☐ Information
Michigan State College Coaching School, 40, ☐ Information
Oregon, University of, Summer Session, 54, ☐ Information
Texas High School Coaches Assn. Coaching School, 56, ☐ Information
Utah State Agri. College Coaching School, 60, ☐ Information

NEW ITEMS

Brunswick-Balke Cohender Co., 48, ☐ Free brochure
Dedoes Industries, 48, ☐ Free fim demonstrating use of "Pitching Robot." Give three booking dates _____, _____, _____
Globe Imperial Corp., 48, ☐ Free sample
Jimknit Co., 49, ☐ Information
Rawlings Sporting Goods Co., 49, ☐ Information "Fleetfoot" football shoes
Recreation Equipment Corp., 48, ☐ Information "Recreation Bouncer"
Sico Grandstands, 49, ☐ Information
Spalding & Bros., A. G., 49, ☐ Free new 1954 School Catalog
U. S. Rubber Co., 49, ☐ Information
Wayne Iron Works, 49, ☐ Free catalog R-54
Wilson Sporting Goods Co., 48, ☐ Free Football Equipment Catalog

BOOKS

(Enclose money where required)

Athletic Enterprises, 56, ☐ Booklet on the Organization and Administration of the High School Varsity Club, $1.00
McGraw Hill Book Co., 61, ☐ "Interscholastic Athletics," George E. Shepard and R. E. Jamerson, $4.00
☐ "Professional Preparation in Health, Physical Education and Recreation," Raymond A. Snyder, $5.50
☐ "Body Dynamics," Eleanor Metheny, $4.00
☐ "The Camp Counselor," R. A. Benson, $4.75
National Golf Foundation, 46, ☐ "A Golf Plan for Schools," free
☐ Intramural Golf Program Materials, complete kit, free
☐ "College and University Golf Survey," free
☐ "Instructor's Guide," $1.00
☐ "Golf Lessons," 25 cents
☐ "The Easy Way to Learn Golf Rules," 10 cents
☐ "How to Improve Your Golf," 10 cents
School Aid Co., 42, ☐ F.B., or ☐ B.B. Treasure Chest, Waterproof plastic $6.95; Genuine cowhide $9.75
Seamless Rubber Co., Cover 3, ☐ "The Strapping of Athletes," Eddie O'Donnell, 50 cents
Six-Man Football Magazine, 38, ☐ Information

Coupon will not be honored unless position is stated.

NAME _____ POSITION _____

SCHOOL _____

STREET ADDRESS OF SCHOOL _____

CITY _____ ZONE _____ STATE _____

INDEX TO ADVERTISERS

American Playground Device Co. 4
Athletic Enterprises 56
Athletic Institute, The 62
Athletic Products Co. 53

Becton Dickinson & Co. 39
Benson Optical Co. 58
Bike Web Co. 31
Birtcher Corp., The 25

Colorado, University of, Coaching School 40
Cramers 59
Crouse-Hinds Co. 37

Dolge Co., C. B. 58
Drake Relays 32, 33
Dunlop Tire & Rubber Corp. 54

Engel Bat Co., Joe 61

Fair Play Mfg. Co. 40
Fenner-Hamilton Co. 40
Florida State Coaching School 54

Hand Knit Hosiery Co. 24
Hillerich & Bradsby Co. 47
Hillyard Chemical Co. 1
Horn & Bro., Wm. H. 50
Hussey Mfg. Co. 41

Ivory System ..... Cover 4

Johnson & Johnson 17

Lannom Mfg. Co., The 27
Lawn Grass Development Co. 29
Leavitt Bleacher Co. 30
Linen Thread Co., Inc. 35

McGraw Hill Book Co. 61
MacGregor Co., The 19
Master Lock Co. 57
Medart Products, Inc., Fred 43
Michigan State College Coaching School 40

Naden & Sons 60
National Golf Foundation 46
National Sports Equipment Co. 60
Nissen Trampoline Co. 51
Noble & Co., Inc., F. H. 57
Nocona Leather Goods Co. 21

Oregon, University of, Summer Session 54

Pi-Mac Sports Equipment Co. 60
Porter Corp., J. E. 3

Rawlings Sporting Goods Co. ..... Cover 2
Recreation Equipment Corp. 58
Riddell, Inc., John T. 23

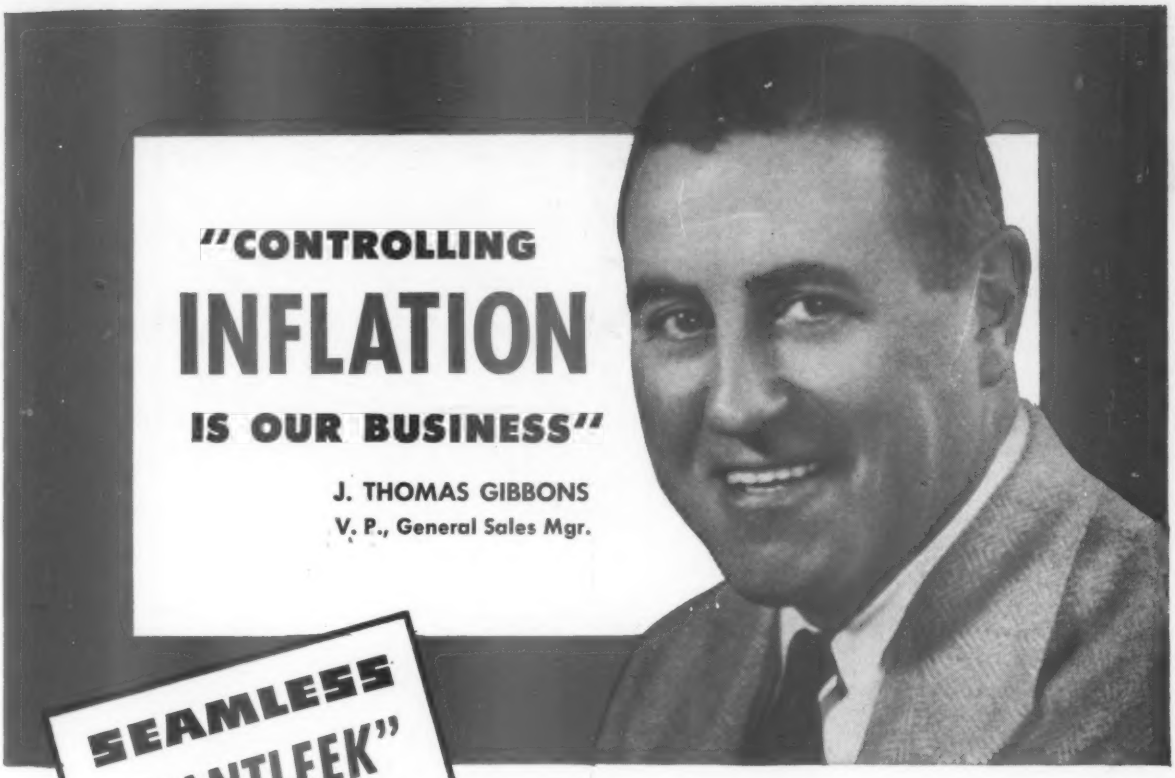
Sand Knitting Mills Corp. 56
School Aid Co. 42
Scott & Sons Co., O. M. 55
Seamless Rubber Co. ..... Cover 3
Seron Mfg. Co. 59
Six-Man Football Magazine 38
Soilaire Industries 55
Summit Hall Turf-Farm 25

Texas High School Coaches Assn. Coaching School 56

Utah State Agri. College Coaching School 60

Vibra-Whirl Co. 52

West Point Products Corp. 30



"CONTROLLING INFLATION IS OUR BUSINESS"

J. THOMAS GIBBONS
V. P., General Sales Mgr.

SEAMLESS "KANTLEEK" BUTYL BLADDERS

Patented, all-rubber Kantleek valve is molded into bladder — cannot separate! Inflating needle slips easily into valve.

"We may not be economic experts up at Seamless but when it comes to athletic ball inflation, and controlling it, we really have the answers for you. Here they are...

1. **Butyl Bladders**—Made of the amazing new synthetic that retains air many times longer than ordinary rubber. *Butyl practically eliminates need for reinflation!* This has been proved by the automobile tire and tube industry.
2. **Kantleek Valve**—Patented, all-rubber Kantleek valve is molded directly *into* bladder. Cannot separate! Air cannot escape! Friction fabric disk around valve assures perfect adhesion of bladder to casing.

"Tough, long-lasting Seamless Kantleek bladders are used in every type of inflated ball...in most official balls. Balls equipped with Kantleek bladders stay inflated longer in stock, on counters, in windows—*and in play!*

"These fine bladders conform to the shape of the ball—without slipping. They easily withstand great and sudden pressure.

"For satisfied customers—for sales and profits—be sure every ball you buy has a Seamless Kantleek bladder. Stock Kantleek bladders for replacement sales. *Write or wire for catalogue and prices on the leading, and largest, bladder line in the world!"*

FINEST QUALITY SINCE 1877

ATHLETIC GOODS DIVISION
THE SEAMLESS RUBBER COMPANY
NEW HAVEN 3, CONN., U. S. A.

FINEST QUALITY SINCE 1877 SR SEAMLESS

IT'S TOUGH

IT'S RUGGED

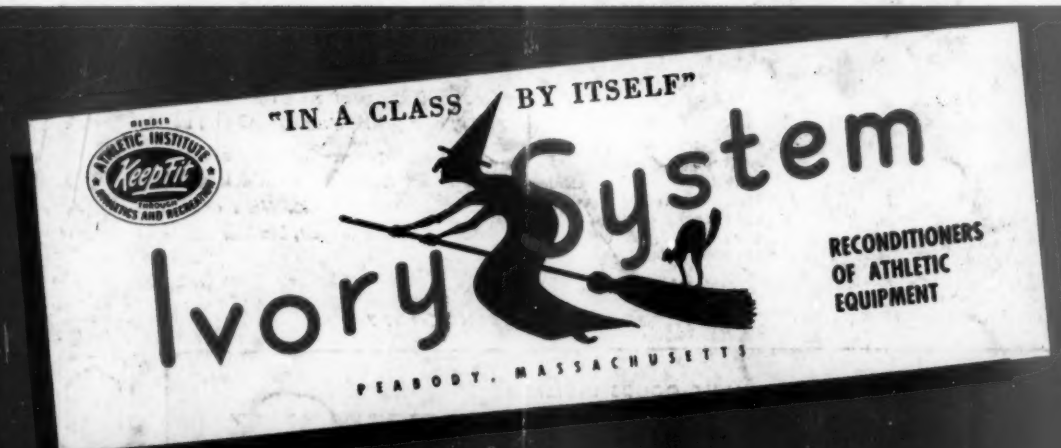
DAWHIDE IS INDISPENSABLE IN THE ATHLETIC WORLD

A modern — tough — non-freeze — non-slip lacing material — far outlasting ordinary laces.

DAWHIDE has been chemically treated and scientifically impregnated to make it water repellent. It is stronger and longer wearing than RAWHIDE. It has been adopted for U. S. Antarctic service.

Sold in spools of 144 yards. Cut it any desired length — to meet your own requirements for Shoes, Shoulder Pads, Pants — in fact, for any purpose where you require the maximum strength in any lacing problem.

Price and sample laces on request.

IVORY SYSTEM, INC.
Reconditioners of Athletic Equipment
Peabody, Mass.

Dawhide Distributors for the Schools and Colleges of America